



BRITISH WILD BIRDS — I

1. Robin
2. Goldfinch
3. Yellowhammer
4. Great Tit

5. Kingfisher
6. Field Tit
7. Wren
8. Willow Warbler

9. Nuthatch
10. Thrush
11. Swallow
12. Yellow Wagtail

MODERN TEACHING IN THE INFANT SCHOOL

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THE STORY HOUR

CHAPTER I

HOW TO TELL STORIES

Introduction. Purposes of Story-telling. Knowing the Story. Memorising the Story. Adapting a Story. Presentation of the Story. Re-expression of the Story by the Children.

TO be able to tell stories to little children one needs a speaking voice, a command of oral language, a knowledge of the child mind, a knowledge of the literature of childhood, and a sense of the dramatic.

The first step in preparing to tell a story is to select it. Here the young teacher needs much guidance. There is such a wealth of material to choose from—a maze of fables, folk tales, hero tales, and legends. To select unwisely is to waste time and in some cases to spoil good literature. In Chapter II the principles that should guide one in choosing stories for little ones are fully discussed, and in Chapter III the literature of childhood is grouped according to literary type, as fable, cumulative tale, etc., and the sources are given. In the remaining chapters are numerous examples of stories of every kind.

General Purposes of the Oral Story

When choosing a story the teacher will have in mind some particular purpose, such as :

(a) To give joy to the child. This is one of the main reasons why stories are told both at home and at school.

(b) To help the child to think or to clarify his thinking ; stories help the child to shape thoughts and language.

(c) To give the child something to remember or to develop his memory.

(d) To develop in the child emotion or imagination, to help him to appreciate what is beautiful. Sensing good literature and liking good literature come only from exposure to good literature. Taste is settled to a great extent before the age of seven or eight. Colourful words, vivid images, good forms of expression become a part of the child himself.

(e) To give moral training. Moral training, or the development of moral and social traits, can be promoted by stories well selected and well told.

Having decided on the purpose of the story and chosen the story, the next thing is to know the story.

Knowing the Story

Some people think that the best way to know a story is to memorise it and then recite it. There is of course some truth in this. Parts of every story, as we shall show presently, must be memorised, and in some cases whole stories, but to trust to memorisation for every story is unwise. In many cases to memorise an entire story gives it a rigidity that makes it unadaptable to new audiences. It tends to make one's delivery stiff and wooden. At its best a memorised story is often

but a declamation. One should trust one's memory for many things but not for everything.

To know a story is to know the spirit and structure of the story, to know the thought, imagination and feeling of the story, the beauty of its setting, and the exact words of the author in the descriptions of some details—i.e. the phrasing and colourful words.

Someone writing on story-telling, says wisely :

"Those who first memorise the words work from without inward, while those who visualise, using the imagination, work from within outward. The verbal memory method is too parrot-like. It leads one to use words that have not been assimilated, and makes the telling of a story superficial and artificial. Verbal memory deals with words. Visual memory goes back of the words to the cause, to the mental pictures for which words stand. He who deals with imagery is free. If he forgets one word he can use another. He can tell the story in the simplest way and language to a little child, or he can tell it in the language of a poet or novelist to an audience of adults, while he who clings to the words of the book becomes a slave to that version of the story."

In many of the folk tales suitable for little ones and indeed in many stories for older children, there are parts that must be memorised. Sometimes the opening sentence is the keynote of the whole story. It grips the attention, narrows it, and suggests the mood. It must be memorised. Again, the closing note or sentence is often most important. The concluding sentence should bring the mind to rest after a journey. It should be mastered. Further, the teacher must memorise

the repeated words or phrases of a repetition tale. Some familiar examples are these :

"Who goes trip-trapping over my bridge ?"

"Then I'll huff and I'll puff and I'll blow your house in."

"You can't catch me, I'm the ginger-bread man."

If the repeated sentences are not the same each time, little hearers are always shocked and will probably venture to correct the teller.

Again, the rhymes in a story must be memorised. They are potent agencies for securing charm.

Here are examples of good direct beginnings that should be remembered. They cannot be improved.

Robert Southey's beginning to his *Story of the Three Bears* :

"Once upon a time there were Three Bears, who lived together in a house of their own, in a wood."

Joseph Jacobs's beginning to *Mr. Miacca*.

"Tommy Grimes was sometimes a good boy, and sometimes a bad boy ; and when he was a bad boy, he was a very bad boy."

Here are some examples of satisfying endings :

"So Tommy ran home, and he never ran round the corner again till he was old enough to go alone." (*Mr. Miacca*.)

"And after that they lived well and happily together a long, long time, and if they're not dead, why, they're alive still." ("*Doll i' the Grass*," G. W. Dasent.)

Part at least of the dialogue of all good stories should be mastered. The children want to hear the talking bear, the fox, the jackal, not poor imitations of them.

It helps one to memorise a story in the right way if one compares it with other stories. It has been said that we do not see anything clearly until we compare it with another. Henny Penny's walk means more to us when we read and compare it with that of the Little Half Chick (Medio Pollito) or of Drakesbill, or with the Foolish Timid Rabbit.

Reading several versions of the same story is another way of dwelling on the life of the story. If it is a folk story it is a great help to read the original.

Adapting a Story

Some stories are so perfect in form, begin and end so well and have such vivid dialogue that, as we have said before, we must memorise them, but some stories need adapting.

Some long stories must be shortened for little ones, but one must take great care in such adaptations.

A story so beautiful as *The Ugly Duckling* should not be shortened for very little ones but left until the children are old enough to enjoy it at seven, eight, or nine.

Anderson's *Snow Man* can, however, be adapted without spoiling, so can *Thumbelina*, as has been pointed out in the section on "Modern Fairy Tales."

In adapting stories to little ones one must choose familiar words and above all avoid being wordy. Familiarity makes for clearness. But on the other hand the teacher must make free to use a new word now and then. This keeps the child on tiptoe as it were. Through the context he glimpses its meaning and rejoices at his new possession.

With little children we should be careful not to use a word more than

necessary (the old nursery tales and folk tales set us a good example); above all we should use few adjectives and not many adverbs.

When adapting certain stories for the younger children one might follow Quiller-Couch in his advice on word selection and choose (1) the short word, (2) the Saxon word, (3) the direct word, (4) the concrete word, and (5) the transitive verb, active voice.

The Presentation of the Story

The story-teller is greatly helped in presenting her story if she has:

(1) *Some Voice Training*.—A little knowledge of phonetics is a great help; it helps to give correct pronunciation of sounds and a knowledge of their formation. The charm of many old tales depends on the vowel and consonant sounds. The open vowels of "On, little Drumikin! Tum-pū, tum-tū," help to give the impression of light-hearted gaiety in Lambikin. An impression of power is given by the sounds of the consonants f and n and the vowels u and o in "Then I'll *huff* and I'll *puff*, and I'll *blow* your house in." The effect of walking is produced by the p of "trip, trap," and so on.

(2) *Some exercises in breathing*.—This really means the correct use of the voice. Most teachers know how to use their voices. It is, however, sometimes necessary to find out one's natural tone and tell the story in that tone.

The use of the pause is of great importance in story-telling, and its proper placing is easy when the structure of the story is understood. The pause must not be artificial and external but closely related to the elements of the story.

Genuine feeling and real understanding of a story is worth a great deal more than isolated exercises.

(3) *A Knowledge of Gesture*.—The successful story-teller is inconspicuous. The actor must use action but the narrator must only subtly suggest it. The eye, the hand, and the voice are his speech organs. By these the story-teller suggests actions but he does not perform them. He uses the exact words of the characters, and thus brings story-actors and listeners face to face. Any attention attracted to himself through bold actions distracts attention from the story-actors and at once weakens the effect of the story.

The following wise advice was once given in a children's library pamphlet dealing with story-telling :

"The object of the story-teller is to present the story, not in the way advocated usually in the schools, but to present it with as little dramatic excitement and foreign gesture as possible, keeping one's personality in the background and giving all prominence to the story itself, relying for interest in the story alone."

(4) *Some Personality*.—Personality over-rides many difficulties. It is much more important than phonetics or breathing exercises, or gestures or other artificial aids. The only way of acquiring a personality so that story-telling is rendered more effective is to live in sympathy with one's surroundings, to try to see things as they affect others, to use one's imagination actively in dwelling on the things of life, to know the sights and sounds and beauties of nature, in a word really to live; thus only can one enter into the life of a story.

Re-expression of the Story by the Children

This has already been touched upon in the chapters on Language Training, but here we give a complete summary of all the various kinds of return that we can expect from the children.

(1) *Conversation*

The little child loves to talk. Long before he tells the complete story he can give all the repetitive speeches. In the Story Section will be found many stories of which the little one can repeat part, and thus gratify his love of speaking.

Every child likes to say the part of the crow in the story, *The Sparrow and the Crow*.

"Your name, sir, is Pond
And my name is Crow,
Please give me some water,
For if you do so
I can wash and be neat
And the nice soup can eat,
Though I really don't know
What the sparrow can mean,
I'm quite sure, as crows go,
I'm remarkably clean."

And then there are many short bits of conversation for the very little ones.

(2) *Reading the Stories*

Children of six and seven enjoy reading aloud a story that has previously been told to them.

(3) *Handwork*

Through handwork the little child can express and understand many things he finds in his stories—the weathervane in the story of *Little Half-Chick*, the kitchen of the *Three*

Bears, the porridge pot in Grimms' tale, Sweet Rice Porridge, the little wagon of Chanticleer and Partlet (Grimm). One might give endless examples. See section on Handwork.

(4) *Drawing. Painting. Paper-cutting
and Crayon Work*

Some stories naturally lend themselves to this form of expression. Grimms' story of Birdie (Fundevoegel), naturally suggests three pictures.

- (a) A rosebush and rose.
- (b) A church and a steeple.
- (c) A pond and a duck.

(5) *Dancing. Games. Free Play, and
Dramatisation*

Many stories suggest activities of different kinds. In the story of the Wolf and the Seven Kids the children can act, the joyful dance at the end. They will love imitating the sounds of the animals in the story, the sound of bells or whistles, and through playing small parts of the story they often come to dramatising the whole story.

In free play and dramatisation, the child finds a need for the expression of his skill in song, dance, construction work, language, and drawing, for he can use all these when playing a story.

CHAPTER II

CHOICE OF STORIES

Principles to Guide One in Selecting Stories. Types of Stories best Suited for the Infant School. The Value of Fairy Tales. Types of Stories Best Left for the Junior School. Summary.

Principles to Guide One in Selecting Stories

WE must remember that the little child lives in the immediate present. His everyday world is so full of marvels and mysteries that life to him is a series of wonderful explorations, but explorations of the actual. It is natural, therefore, that the little child should want to hear about the things that belong to his surroundings—the things he sees, or hears, or handles. He is too individualistic and must have the stories told in terms that he can transform into actions.

Little ones of three love to hear their own experiences reproduced exactly as they have happened to them. Stories based on these experiences and containing expressions used by children meet with instant response. Stories about other children who do the things that all little children would like to do, stories about cats, dogs, rabbits, and sometimes farm animals, soon become popular and at last fairy tales. We need perhaps to be careful about introducing fairy tales too soon, not because fairy tales are unsuited to children but because we want them to enter the fairy world freely, and joyfully, and without any bewilderment.

If we introduce the fantastic, the remote, and the far-away, while the little child is still trying to find his way among the absorbing realities of his immediate surroundings we merely baffle him. It has been wisely said, that "we can best help the child to

an appreciation of the imaginative by keeping close to what is actual for him." This, of course, is especially true of the first two years of school life.

As has been pointed out in the sections on the teaching of English, both in the volumes of Infant School and Junior School work, it is in the simple story of actual child experience that the teacher will find his surest guidance in choosing stories and literature that are suited to the interests of little children. The oral conversation lessons are full of suggestions for stories.

We will now consider the various types of stories best suited to the Infant School.

(1) Stories Based upon a Child's Own Experiences

These will include for very little children stories about the child himself, and stories about familiar people—father, mother, auntie. The child a little older will enjoy stories based upon such experiences but dealing with other children and the things they say and do. We must remember that things that seem commonplace to us—railroads and telephones and gas stoves, are just as mysterious to the little child as goblins and fairies.

Unfortunately, there is not a great number of this type of story in print, and this fact sometimes means that we force the youngest children to accept literature best suited for those a little older.

One of the most interesting books dealing with the "experience" story is

published in America. It is called "Here and Now Story Book," by Lucy Sprague Mitchell (published by E. P. Dutton & Co.). This gives a series of stories for little ones of from two to seven, based on their own experiences. The stories are graduated for the different ages in an interesting manner. The author wisely points out that as stories for the two- or three-year-old child need to be about himself they must be specially written for him, because those written for another two-year-old may not fit. Therefore, the author says the first three stories are meant to be types rather than independent narratives. In the section on Stories to Tell, some examples of "experience" stories will be found.

(2) *Stories about Other Children*

Soon the little child shows marked appreciation of stories about other children who do the things he likes to do.

Sometimes it is enough for the children that the same thing happens over and over again. Children of three and four years old will enjoy an astonishing amount of repetition. Just as they cannot bear complications so they cannot grasp details if the movement of the story is quick. We must give time for a child's slow reactions, hence the need for repetition.

"The Story of Little Black Sambo," by Helen Bannerman (Chatto & Windus, 1s. 6d.), is fascinating to children of four and five years old, because it is about a little boy who has the experiences children long to have.

(3) *Stories of Animals, Engines, Wagons with Horses, and Moving Things, including the Child Himself.*

The child of four or five thinks

through his muscles; he personifies in his thought and in his play. If we bring inanimate, still things into our stories we must endow them with life, but we must keep them real so that a child understands them. We need not be afraid of personification confusing the child, nor of leading him from the world of reality if we keep our stories simple and direct. The wolf must really remain a wolf even if he speaks and the engine must be an engine. *

Stories of cats and dogs and rabbits that dress up like people and talk, greatly interest little ones, such as *The Tale of Benjamin Bunny* and *The Tale of Peter Rabbit*, by Beatrix Potter.

It is more difficult to find stories about engines and city sights and sounds and all the magic of modern machinery.

The Foolish Chauffeur in "Stories to Tell the Littlest Ones," by Sara Cone Bryant (Harrap), is an interesting story of a motor-car; *The Velocipede that Went by Itself* is another story full of movement that can be found in the same book.

Indeed, the child wants *action* in all his stories of whatever kind, animal tales or fairy tales.

"*Dame Wiggins of Lee and Her Seven Wonderful Cats*"—a humorous tale written by Mrs. Sharp, a woman of ninety, and edited by John Ruskin, who added some stanzas—is a story full of action, even perhaps more full of action than the wonderful story of the *Gingerbread Man*. "*Dame Wiggins of Lee*" is published by George Allen & Unwin, Ltd., 1s.

(4) *Fairy Tales or Folk Tales*

These please the child by their power

to give recreative joy through stirring the emotions and activating the imagination. Their recreational value is clearly set forth by Margaret Eggleston. "To rob the child of good fairy stories is to take away something which makes all literature more pleasurable, all art more full of meaning, and all life more full of fancy. And fancy is one of the recreations of life most worth while."

Bearing in mind the interests and needs of the little child, we can select from the great storehouse of fairy tales an excellent series of tales for little ones.

We can find (1) stories for little ones that although touched with fancy yet deal with everyday life and familiar things; for the child, limited in experience, loves, as we have said before, to meet among the unknown the things he knows. It gives him a feeling of security. Homes and the people who live in them, food and clothing, the garden, the friendly cat and dog, the road or street, the stream near one's home, everything that is part of the child's world. He feels these things to be his own even in a story.

Henny Penny starting out for a walk, the little Red Hen making a loaf, the Little Pigs building houses, here in these stories is life and the familiar.

(2) Stories full of pleasant surprises, such as *The Three Bears* or *Mr. Miacca*. (3) Stories full of action and rhythm and repetition, such as *The Gingerbread Man*. (4) Stories full of sense impressions, good things to eat, beautiful flowers and dresses; the *Gingerbread Man* with his chocolate jacket, his cinnamon buttons, currant eyes, etc., makes a strong sense appeal; the beautiful red and white rose trees in *Snow White* and *Rose Red* and so on.

(5) *Stories of Wonder, Magic and Adventure, especially for the Older Children from Six upwards*

The spirit of wonder leads a child on through many a fairy tale. One of the best wonder tales is that of *Little Two-Eyes*. How the children love the appearance of the little table set with food when *Two-Eyes* says,

"Little kid, bleat,
I wish to eat!"

(6) *Humorous Tales*

(7) *Tales about Animals*

(8) *Tales about Little Things, Little People, Little Animals*

For example, the baby bear, the little billy-goat, the little pig, the little mugs and beds and table, etc., in the dwarfs' house in the woods, and so on.

Indeed there is such a wealth of material in fairy stories to choose from that the teacher needs to think well in order that she may give her little ones the most suitable.

It may be well to consider now some types of stories not suitable for the Infant School. The following is a list of typical stories that, although in many cases good in themselves, are more suitable for the Junior School. A study of this summary will help the teacher when making her selection for little ones.

The following Types of Stories should be Left for the Seven- and Eight-year-old Children.

(1) *Tales about Witches*

The witch is too strange and fearful for the child who has not learnt to distinguish the true from the imaginative. Stories such as *Hansel and Gretel* should be given in the Junior School to children of seven and eight.

(2) *Tales of Dragons*

Stories such as St. George and the Dragon, Siegfried and the Dragon, etc., are probably best left for the Junior School.

(3) *Giant Tales*

Jack and the Beanstalk, Jack the Giant-Killer and Tom Hickathrift are delightful stories for the Junior School. Not every giant story, of course, need be left for the Junior School. There is one delightful giant story that belongs to the Infant School and that is Mr. Miacca. Little Tommy, who "couldn't always be good and one day went round the corner," appeals to little ones who easily identify themselves with Tommy because Tommy is so lively and inventive and speaks so like a child. Then the story is brimful of fun and surprises, so what more could the little listener want? The story Mr. Miacca is in "English Fairy Tales," by Joseph Jacobs. His fine version of this story will be found in the section on Stories to Tell.

(4) *Some Tales of Transformation*

The little child is sometimes not pleased but shocked by the transformation of men into animals. They lose their feeling of security. Such stories as Little Brother and Sister, Beauty and the Beast, will be best enjoyed in the Junior School, but simple stories of transformation such as, The Little Lamb and the Little Fish and Grimms' Fundevogel can be used in the kindergarten.

(5) *Tales of Strange Animal Relations and Strange Creatures*

Tom Tit Tot, one of the most delightful fairy tales and full of humour, must

be left for the child of seven and eight. The tailed man is not suited to the belief and understanding of the child of six. The same applies to The House in the Wood and its Norse parallel, The Two Step-Sisters. But on the other hand, Snow White and Rose Red, although it contains the strange dwarf, is a story so full of love and goodness and home life that it is well suited in spite of its length for the child of six.

(6) *Unhappy Tales*

The very little child pities greatly and is too easily made unhappy by a sad story, such as The Little Match Girl. The child of seven or eight has more poise and less impressionability.

(7) *The Very Long Tale*

Delightful stories, such as The Ugly Duckling, The White Cat, Puss-in-Boots, etc., because of the length should be given to the children of seven and eight in the Junior School.

(8) *The Complicated or Insincere Tale*

Stories of complicated structure, such as Grimms' Golden Bird and many modern fairy tales, should perhaps be omitted altogether from the syllabus of both the Infant and the Junior Schools.

To sum up, one might answer the question, "What kind of story shall I select to tell children?" in the words of Clifford H. Nowlin:

"Choose a story filled with connected action, vitalised by conversation, expressed in familiar terms, and told with a definite purpose."

Various types of stories for different ages will be found in the chapters on Stories to Tell.

CHAPTER III

SOURCES OF STORIES

Sources of Stories with Detailed Lists of those most Suitable for the Infant School. Fairy Tales, Sources, Different Kinds ; Fables, Myths, Modern Stories of Different Kinds.

A. Folk Tales or Fairy Tales

UNDER the heading of folk tales or fairy tales we have a huge collection of stories from which to choose. The collection of folk tales is such a large one that they cannot all be mentioned here, but a few sources of the tales most popular with children of to-day are given.

(a) *Arabian Nights*.—A collection of Oriental stories which are supposed to have originated in Arabia, India, and Persia. Probably the best version to read or tell to children, because it is the most truly Oriental, is the translation from the Cairo text by E. W. Lane. The next best version, a French one by M. Galland, is the one on which most of the editions for children are based. Some of the best editions are :
"Arabian Nights" by Padraic Colum (Macmillan).

"Arabian Nights" by Andrew Lang (Longmans).

Stories from this source are suitable for children over seven and for children in the Junior School.

(b) *French Fairy Tales*.—Another collection of folk tales was written by Charles Perrault under the title of "Tales of Mother Goose." He has given us the most delightful versions we have of many fairy tales. Good editions are :

(1) Charles Perrault's "Tales of Mother Goose," translated by Charles Welsh (Heath). This contains eight folk tales rewritten by Perrault with great charm. They include Cinderella, Sleeping Beauty, Tom Thumb, Puss-in-Boots, Bluebeard, Riquet-of-the-Tuft, and Red Riding Hood.

(2) Sir Arthur Quiller-Couch's edition, "The Sleeping Beauty and Other Tales from the French." Other editions will be found at the end.

(3) Madame d'Aulnoy's "Fairy Tales" are based in many cases on old folk tales. Her best stories are Graciosa and Percinet, The White Cat, and The Yellow Dwarf. A good edition of her fairy tales, with an introduction by Anne T. Ritchie, is published by Scribners.

(c) *The Folk Tales of the Brothers Grimm*.—The first scientific collection of folk tales recorded as they were told by German peasants. Some of the best editions of "Grimms' Fairy Tales" are :

(1) "Fairy Tales," translated by Mrs. Edgar Lucas, illustrated by Arthur Rackham (Heinemann). A beautiful edition.

(2) "Household Tales," translated and edited by Margaret Hunt, introduction by Andrew Lang (Bell & Sons).

(3) "Grimms' Fairy Tales and Household Stories" (Warne, 3s. 6d.).

"Grimms' Goblins and Wonder Tales" (Warne, 3s. 6d.).

(d) *Norse Fairy Tales*.—These have been beautifully translated into English by George Webb Dasent. His two best-known books are: "Popular Tales from the Norse" and "Tales from the Fjeld." Selections from these books will be found in "Norse Fairy Tales," published by George Routledge, 6s.

Another excellent collection of Norse tales is "Fairy Tales from the Far North" by P. C. Asbjørnsen, translated by H. L. Braekstad (David Nutt). Now out of print.

(e) *Joseph Jacobs collected from many sources charming versions of Folk Tales*.—In all he published five volumes of English, Celtic, and Indian folk tales. The names of his books are given below; some of them are unfortunately out of print but they can generally be obtained second-hand. They are an invaluable collection for the story-teller. In his introductions, Jacobs tells us that he has altered the stories in some cases by additions or eliminations in order to make them more interesting to children.

(1) "English Fairy Tales," Joseph Jacobs (David Nutt).

(2) "More English Fairy Tales," Joseph Jacobs.

(3) "Celtic Fairy Tales," Joseph Jacobs.

(4) "More Celtic Fairy Tales," Joseph Jacobs.

(5) "Indian Fairy Tales," Joseph Jacobs.

(f) *Folk Tales collected from the Negroes*.—These collections are mainly the work of Joel Chandler Harris. His books include: "Uncle Remus, His Songs and Sayings," "Nights With

Uncle Remus," "Uncle Remus and His Friends," "Uncle Remus and the Little Boy." It is well to use an edition in which the negro dialect is translated into good English, for example, "Fifty Stories from Uncle Remus" (Harrap, 3s. 6d.).

(g) *Russian Folk Tales*.—A very valuable collection of Russian stories suitable for quite little children will be found in Valery Carrick's "Picture Tales from the Russian," in three volumes (Basil Blackwell).

Besides these main sources mentioned above there are many others. Some of these are referred to when particular stories are discussed. Andrew Lang has rewritten many fairy tales to entertain children. He has accepted translations from many sources and has given straightforward narrations. The results of his indefatigable labours are in his rainbow Fairy Books, but they are not always to be recommended for children. The best book is, perhaps, "The Blue Fairy Tale Book."

We have now to consider what selection we shall make from these folk or fairy tales for our little ones.

Fairy tales suitable for children in the Infant School may be considered under six headings: (1) The accumulative or clock story, (2) the animal tale, (3) the humorous tale, (4) the realistic tale or household tale, (5) the romantic tale.

(1) *The Accumulative Tale or Chain Tale*

The accumulative tale is the simplest form of the fairy tale and most suitable for the youngest children. The child at first loves sound, then he loves sound and sense. Repetition, as we have said before, pleases him both because he has

limited experiences and is glad to come upon something he knows and because the repetition gives him time to grasp the meaning. Moreover, the little child needs continuity; he sees and hears and thinks in a simple, rhythmic continuous flow; he joins all his sentences together. There must be no break; the accumulative tale winds on without any break.

(a) *Teeny Tiny* ("English Fairy Tales," by Joseph Jacobs). See the section on Stories to Tell, Chapter IV.

(b) *The House that Jack Built*. This is a story of simple repetition.

(c) *The Old Woman and her Pig* ("English Fairy Tales," by Joseph Jacobs). This is an accumulative story where there is an addition and where the end turns back on the beginning and changes all that precedes.

Every child likes this story and is very proud of himself when he can tell it. It lends itself remarkably well to illustration. Older children of seven and eight will enjoy the Scandinavian version of this story, called *Nanny, Who Wouldn't Go Home to Supper* (from "Fairy Tales from the Far North," P. C. Asbjörnsen). In the Punjab the story is called *The Grain of Corn*.

Another similar accumulative story that winds back and is simple enough for children of four and five is the story of *The Cat and the Mouse* (Joseph Jacob's "English Fairy Tales," David Nutt).

(d) *Titty Mouse and Tatty Mouse* ("English Fairy Tales," by Joseph Jacobs).—This story pleases children because of the liveliness of its images and because of the catastrophe at the end which affects the child like the tumbling down of a pack of cards or a pile of bricks. This story, too, has many variants. It is Grimm's *The Lady-*

bird and the Fly, a beautifully told tale that well illustrates Stevenson's "pattern of style." Besides effective use of sound there is excellent use of concrete language; the words present images that are clear-cut as a cameo.

Other variants that older children may like are the *Norse*, *The Cock Who Fell into the Brewing Vat*, and the *Indian*, *The Death and Burial of Poor Hen*.

(e) *Johnny Cake* and *The Gingerbread Man* and *The Wee Bannock* are all variants of the same story. This is a type of accumulative tale that shows a more definite plot; it is more story-like in form because there is a more decided introduction and conclusion. This is a story most suitable for the little ones. What better fun could there be than for a gingerbread man to come to life and run away like any mischievous child, shouting to all who try to catch him,

"Run, run, as fast as you can;
You can't catch me; I'm the Gingerbread Man!"

It appeals, too, to their sense of taste; this is shown by the glee in which the little ones share in the enjoyment of the fox as quarter by quarter he devours the luckless gingerbread man.

(f) *How Jack Went to Seek His Fortune* ("English Fairy Tales," retold by Flora Annie Steel, Macmillan). This is also an accumulative story that shows more plot. Children of six and seven love this story for its homely details, its refrain, and its spirit of adventure. "So on they went, Jack, the cat, and the dog! Jiggelty-jolt, jiggelty-jolt, jiggelty-jolt."

(g) *The Straw Ox* (A Cossack Tale, in "More Russian Picture Tales," by

Valery Carrick, Basil Blackwell). This is a fine accumulative story for little ones. It has definite form, vivid words, direct language, and repetition. The conclusion is very satisfying because in the end everyone is happy: the old people have all they need; and the animals have life and freedom.

(h) Other simple interesting accumulative stories are: Munachar and Manachar (Celtic), Little White Rabbit (Portuguese), The Travels of a Fox ("New England Nursery Tale"). Some of these will be found told in the section on Stories to Tell.

(i) The Three Bears. This is another type of repetitive story where there is repetition and variation, and the repetition is like the refrain of a song. It is an ideal fairy story for little ones. It is not really a folk tale. It was written by Robert Southey and appeared in "The Doctor" in 1837. Southey may have used as his source "Scrapfoot" (Joseph Jacobs). In any case he gave to the world a nursery classic which should be retained in its purity of form. One wise alteration, however, has been made in Southey's story, that is the substitution of Goldilocks for the Little Old Woman. Little ones enjoy the story more with a child as the chief actor. Silver-hair is another substitute for the Little Old Woman in The Three Bears. How the little child will accept the bears depends on his previous experience and the teller of the tale. The child who has nursed a teddy-bear and been told the story so that he enjoys the fun of it, will see nothing terrifying in the three bears.

It is, as we have said before, an ideal fairy tale for little ones, containing as it does so much that is familiar and

usual and so much that is pleasantly surprising.

Similar in structure to The Three Bears is the Norse story of The Three Billy-Goats Gruff. This is a story very perfect in form, and simple and sincere, therefore ideal for the child of six, seven, or eight. This is the direct manner in which Dasent begins the story:

"Once on a time there were three billy-goats, who were to go up to the hillside to make themselves fat, and the name of all three was 'Gruff.'" (Dasent's "Norse Fairy Tales," Routledge, 6s.).

(2) *Animal Tales*

The folk tales or fairy tales include many very suitable ones for little ones. A large number of animal tales are accumulative tales or tales of repetition like those already given under that heading. Other animal tales suitable for the Kindergarten or Infant School are:

(a) Henny Penny or Chicken Licken (Joseph Jacob's "English Fairy Tales"). This is one of the most delightful animal tales for little ones. A little hen goes a walk in a perfectly natural way and has the surprise of her life.

(b) The Foolish Timid Rabbit. This is an Indian story similar to Henny Penny. It is a delightful story. (See the Section on Indian Fables. The story will be found in "Eastern Stories and Legends," M. Shedlock, published by Routledge. A simple version for little ones is given in the section on Stories to Tell.)

(c) The Sheep and the Pig who Set up House Together. A Norse story (in Dasent's "Tales from the

Fjeld.'). This is a story full of life and humour. Little ones of five and six will enjoy it. See section on Stories to Tell, Chapter VI, for this story.

(d) *Medico Pollito* or *The Little Half-Chick* (Spanish). This is an accumulative animal story similar to *Henny Penny*. Since it is a story of peculiar interest and charm it will be perhaps best appreciated by the children of seven. The disobedient and energetic chick who sets off to Madrid is both amusing, lovable, and interesting. The beauty of the story lies in the settings of the adventures. The Little Half-Chick comes to a stream, to a fire by the roadside, to the wind, to the king's palace in Madrid, to the king's cock, until at last he is immortalised as a weathervane.

(e) *The Three Little Pigs*. This is another ideal story for little ones. It suits them even better perhaps than *The Three Bears*. The little pigs running about and building houses are in touch with the mood of a child. The outwitting of the wolf and his tragic end they consider a good joke and heave a sigh of intense satisfaction when the little pig claps on the cover of the kettle and begins to cook the wolf for supper. They love the thought of a good meal. But above all the simplicity of the form of the story and the repetition of musical and fantastic words make the greatest appeal to children. Little ones who hear the story will often be heard saying to themselves :

" Little pig, little pig, let me come in."

" No, no, by the hair of my chinny-chin-chin."

" Then I'll huff and I'll puff and I'll blow your house in."

The dramatic element is so strong in this story that children often want to act it or to act part of it.

A very good version of this story is given in Leslie Brook's "*Golden Goose Book*" (F. Warne).

(f) *The Wolf and the Seven Kids* (Grimm).

(g) *Brother Rabbit Takes some Exercise* (from "*Nights with Uncle Remus*"). This is a story very similar to *Henny Penny*.

(h) *The Three Goslings*, an Italian version of the little pigs. Children enjoy this story.

(i) *The Town Mouse and the Country Mouse*, really an elaborated fable, suitable for children of seven to eight.

(j) *The Robin's Yule Song*. This is a beautiful accumulative story dealing with animal life. The sequence of the story is mainly preserved in the change of setting. This change of setting also adds to the pleasure and beauty of the tale—there is the waterside, the turf wall, the great rock, the window-sill of the king's palace, the king's palace. This story has been attributed to Robert Burns. It will be found in "*Rhymes and Stories*," compiled by M. F. Lansing (Ginn & Sons).

(k) *The Little Red Hen and the Fox*. This happy little story will remind the children of clever Tommy in Mr. Miacca, because the little red hen escapes from the fox as Tommy did from the giant. This story will also be found in "*Rhymes and Stories*," by M. F. Lansing (Ginn & Sons).

(l) *The Sparrow and His Four Children* (Grimm).

(m) *The Cat and the Mouse* ("*English Fairy Tales*," Joseph Jacobs). Children of five enjoy the direct beginning :

"The cat bit the mouse's tail off. 'Pray, puss, give me my tail.' 'No,' says the cat, 'I'll not give you your tail, till you go to the cow, and fetch me some milk.'"

They like also the little rhymes scattered through the story.

"First she leapt and then she ran,
Till she came to the cow and thus began,"

It has the advantage too of being one of the shorter of the accumulative stories.

(n) The Magpie's Nest ("English Fairy Tales," Joseph Jacobs). A delightful story for children of five and over in spring days.

(o) Mouse and Mouser ("English Fairy Tales," Joseph Jacobs). A short dramatic tale.

(3) *The Humorous Tale*

A great many stories we have already mentioned are humorous tales for little ones. The humour that appeals to them lies in the repetition of phrases, in the change of voice (a loud voice, a teeny, tiny voice), in the contrast of ideas in the element of surprise. The humorous story must tend to alter as the children grow older. Older children are less easily surprised and need different types of stories. The following are a further selection of humorous tales that appeal to little ones:

(a) The Bremen Town Musicians (Grimm). This is a fine story in every way. The children always laugh at the cat "sitting in the middle of the road, wearing an unhappy heart behind a face dismal as three rainy Sundays," even if they do not quickly understand the word dismal. It is a finer story of

co-operation than *How Jack Sought His Fortune*, already mentioned under tales of repetition.

(b) Lambikin ("Tales of the Punjab," Steel; "Indian Tales," Jacobs). There is most pleasing humour in this story for the little ones. They love the reckless little lamb who answered even the tiger with a frisk as he said:

"To Granny's house I go,
Where I shall fatter grow, ~
Then you can eat me so!"

(c) Jack and his Comrades. This is the Celtic version of *The Bremen Town Musicians*. It is thought by many to be the most dramatic and impressive version of the story. Another version of this folk tale will be found in the chapter on *More Stories to Tell*. It is a very simple version suitable for little ones called Billy Bob Tail and his Friends, see Chapter V, *More Stories to Tell*.

(d) The Cat and the Mouse in Partnership (Grimm).

(e) Drakesbill, a French humorous accumulative tale. Children love Drakesbill and his cry, "Quack, quack, quack, when shall I get my money back?" A very similar story to this, called *Going to the Fair*, will be found in the section on *Stories to Tell*.

(f) Very many of the *Uncle Remus Tales*. For example: *Why the Hawk Catches Chickens*, *Brother Rabbit and Brother Tiger*, and *Heyo, House! Heyo, House!* is in "*The Book of Stories for the Story-teller*," by F. E. Coe (Harrap). A humorous story from this source will be found in the section on *Stories to Tell*.

(g) The Rabbit who Wanted Red Wings and many others. See section on *More Stories to Tell*, Chapter V.

(4) *The Household Tale or Realistic Tale*

These tales are very suitable for little ones, for they deal or should deal with the simple and the ordinary.

Grimms' Hans in Luck is a perfect realistic tale, so too are Grimms' Clever Maggie, and the Norse Three Sillies, but these three stories are most suitable for the Junior School (see Syllabus in Literature for Junior School, "Modern Teaching").

The Story of the Little Hen is a perfect realistic story for little ones. It is a story of thrift and the homely occupation of bread making.

Lazy Jack (Grimm) is a good realistic story for children of six and seven. The setting is simple and homely—the house of a poor mother and her son. The son is sent out to get work. Each day he brings back his earnings. The interest and humour lie in what he brought back, how he brought it back and his mother's advice to him. It is a very similar story to Epaminondas, which will delight the little ones of five. Epaminondas is in "Stories to Tell to Children," by S. Cone Byrant (Harrap).

A great many of the accumulative tales already mentioned are realistic tales, such as The Old Woman and her Pig. This story is of particular value because each object is asked to do the thing that is natural for it to do, the dog to bite, the stick to beat, the fire to burn. The sequence is easy to remember because the child can reason out cause and effect.

Many fairy tales not realistic contain a large realistic element. In The Little Elves and the Shoemaker we have a realistic picture of a simple

home. In Red Riding Hood we have the realistic setting out of a little girl to visit her grandmother. This realistic element always appeals to the little child because, as we have said before, it is in touch with his experience. Other fairy tales with a large realistic setting are The Three Bears, The Three Pigs, and The Three Billy-Goats Gruff. Animal tales must of necessity be largely realistic because their foundation is in the facts of the nature, habits, and traits of the different animals they portray. Titty Mouse and Tatty Mouse, though realistic in its setting, soon becomes transformed into a romantic story because the stool talks, the old bench runs round the house, and other wonderful things happen. The common and customary become uncommon and unusual. This brings us to the romantic tale.

(5) *The Romantic Tale*

The romantic tale arouses emotion. It contains adventure; it deals with dreams and far-away places; the objects in it are touched with beauty and wonder. On the whole the romantic tale is best left for the Junior stage, for example Red Riding Hood, Cinderella, The Sleeping Beauty, etc., etc. The following romantic tales are suitable for children of six and seven and over.

(a) Little Two-Eyes (Grimm). One of the most attractive of folk tales.

(b) Snow White and the Seven Dwarfs. This appeals to the children for the glimpse it gives of the quaint home life of the dwarfs in the woods.

(c) The Little Lamb and the Little Fish (Grimm).

(d) Puss in Boots or the Norse story of Lord Peter.

This latter tale is told by Dasent in "Norse Tales."

(e) *The Elves and the Shoemaker.* A story of beautiful structure.

(f) In *The Adventures of Chanticleer and Partlet*, the setting adds to the romance and attractiveness of the story. This is especially true of the version of the story found in Rackham's "Grimms' Fairy Tales" (Heinemann). Little ones will enjoy the first part of the story, "How they went to the hills to eat nuts." The direct beginning appeals to children:

"Chanticleer said to Partlet one day, 'The nuts must be ripe; now we will go up the hill together and have a good feast before the squirrel carries them all off.'"

(g) *Birdie* ("Grimms' Fairy Tales and Household Tales," Warne). This is a pleasant story of transformation that little ones enjoy. The little girls Birdie and Lena become in turn rose-bush and rose, church and steeple, poppy and duck, to escape the wicked old cook. The ending is pleasing:

"Then the two children went home with the three servants, all happy and delighted; and they are not dead they all live there still."

B. Fables

Some fables are suitable for the kindergarten. Many can be left for the Junior School.

The earliest fable was the beast fable. For many reasons fables are suitable for the Infant and lower forms of the Junior School. The fable is short and so is quickly read or told; it is very frequently about animals, and animals are the natural companions of the child; it appeals to the child's imagination, for it represents the animals as

having human properties—talking and keeping house; and it suggests a plain moral, but little ones are not particularly interested in the morals.

Joseph Jacobs says of fables, "They teach lessons not too complicated for childlike minds. Indeed, in their grotesque grace, in their insight into the cruder vices, in their innocence of the fact of sex, *Æsop's Fables* are as little children. They are as little children, and for that reason they will for ever find a home in the heaven of little children's souls."

(1) *Greek Fables by Æsop*

Examples of *Æsop's fables* every child should know. Some can be learnt in the Infant School and some in the lowest forms of the Junior School:

The Fox and the Grapes, The Lion and the Mouse, The Kid on the House-top, The Dog in the Manger, The Crab and His Mother, The Shepherd Boy Who Called "Wolf," Belling the Cat, The Lark and Her Young, The Milk-maid and her Pail, The Ass in the Lion's Skin.

(2) *Collections and Examples of Fables from India*

(a) "*Pilpay's (or Bidpai's) Fables*" (Brahmanic). The Fables of Pilpay are long and involved. The jackal in these fables takes the place of the fox. Some well-known fables of Pilpay are: The Wedge-Pulling Monkey, The Tortoise and the Two Ducks, The Leopard and the Lion, The Three Fish, etc. See "*The Fables of Pilpay*" (F. Warne & Co.) for these and other fables.

The best of these fables for little ones are: The Tale of the Talkative Tortoise (for an easy version for telling

see "Stories to Tell and How to Tell Them," by Elizabeth Clark (University of London Press). The Greedy and Ambitious Cat, The Wedge-Pulling Monkey, The Monkey and the Crocodile. The plot in the story of The Monkey and the Crocodile has been used a hundred times in European tales. Thus is the West debtor to the East.

A delightful story that is substantially the same as one of "Pilpay's Fables" is King Lion and the Cunning Little Jackals. This will be found delightfully told in "Old Deccan Days," by Mary Frère (John Murray, 7s. 6d.).

(b) The "Jataka Tales" or fables in which Buddha is represented as visiting the earth in the form of animals. The Jataka tales are a mixture of beast fables, moral fables and folk tales in which the Buddha to be plays an important part. The Foolish Timid Rabbit is a Jataka Tale. See section on Stories to Tell.

The following are a list of books of fables :

Joseph Jacob's "Æsop's Fables" (Macmillan). A beautiful edition for the teacher.

"Æsop's Fables, an Anthology of the Fabulists of all Countries" (Everyman). This contains, besides Æsop's Fables and some modern fables, fables from Pilpay (or Bidpai). "

Joseph Jacob's "Indian Fairy Tales" (Putnam). Excellent retelling of some of the Jataka tales.

M. L. Shedlock, "Eastern Stories and Legends." These are mainly Jatakas or so-called birth-stories. The best book in its field for young readers (Routledge, 2s. 6d.).

"The Baby's Own Æsop" (Warne). The fables are told in rhyme and the morals pictorially printed by Walter

Crane. It can be happily read to children from five to eight.

"Æsop's Fables," translated by Sir Roger L'Estrange (Lane). This book contains one hundred fables, two hundred illustrations and a delightful introduction by Kenneth Grahame.

The various fables most useful for the Infant School are given in the syllabus of stories at the end.

C. Myths

It is difficult to distinguish between the myth and other literary forms. The myth, like the beast fable, hero tale, folk tale, and fairy tale, is based on the primitive belief of an animated world. In all myths an animated nature is taken for granted. The following is a good explanation of the myth :

"The myth was considered not merely a vehicle of the truth, but the truth itself ; its chief characters were deities, with heroes, common mortals, and animals in subordinate rôles ; *its purposes, explanatory and religious.* Each race had its own myths. Some were original, some original in parts, others borrowed outright. At first they were believed literally and lived by, then taken figuratively, and finally rejected."

The full significance of myths must of necessity be missed by the majority of young readers. The difficulty in presenting myths is not so much that their significance escapes the child, but the difficulty of finding versions literary enough to suggest the beauty and spirit of the original. Versions retold for children are often mere summaries. Obviously beautiful myths like those of Balder or Persephone should not be written down to

little ones when there is plenty of other material for them.

But such a "poarquoi" myth or tale, for instance, as, Why the Bear Has a Stumpy Tail or Why the Evergreen Trees Keep their Leaves in Winter (Florence Holbrook's "A Book of Nature Myths," Harrap, 1s.), are well suited for the Infant School.

The most childlike of all myths, because they are the products of a free, out-of-door people who really lived and thought like children, are those of the North American Indians. Many of these can be given to little ones. Some of these will be found in the section on Stories to Tell and the titles of others are given in the syllabus of stories.

D. The Bible

The greatest source of stories perhaps to be found. The Bible is a great storehouse of literature, and from this wonderful source we can select many stories for little ones that have the charm of truth and reality. Here we can find true stories of adventure, stories of herdsmen, vine-dressers, kings and queens, and shepherds and fisherboys; stories of boys and girls, of animals and flowers and stars. Almost every variety of story can be found in the pages of the Bible. Some of the most suitable for little children will be found in the syllabus of stories given.

E. Modern Stories

(1) Modern Fairy Tales

The modern fairy tale may be said to begin with Andersen's "Fairy Tales." Most of Andersen's stories belong to the Junior and Senior Schools.

They are models of style and should not be too ruthlessly adapted and shortened. A few of his stories are admirably fitted for the Infant School, for example, The Tin Soldier. This is a fine example of a modern realistic fairy tale. The adventure might happen to any tin soldier. The story, moreover, is in touch with the mood of a child who tends to endow his toys with life. The very first sentence is the child's point of view, "There were five and twenty tin soldiers," for the child loves to count his soldiers.

Again, Andersen's Thumbelina might be adapted for kindergarten children. The story is very suitable but it is very long. It can, however, be easily analysed into episodes and each episode told as a complete story. This would please the children, who would welcome each new story about Thumbelina. The following episodes would make complete stories:

- (1) Thumbelina and her Cradle,
- (2) Thumbelina and the Toad,
- (3) Thumbelina and the Fishes, etc.

We shall not harm Andersen's Snow Man by adapting it for little ones. The adaptation will consist of leaving out the part about the lovers. What remains makes a fine humorous story without any sentimentality.

Other stories of Andersen that might be made use of in the Infant School are given in the syllabus of stories at the end.

In the "Just So Stories," Kipling has given us some fine animal fairy tales, with a basis of scientific truth. Some of these can be used in the Kindergarten. Perhaps the two best stories for little ones are The Elephant's Child and How the Camel Got his Hump.

It is difficult to find modern fairy tales simple enough for the youngest children. They too often present a multitude of images that are confusing, and they lack unity and harmony of character and plot.

There is, however, Peter Rabbit, a realistic fairy tale by Beatrix Potter, and the stories of his companions—Benjamin Bunny, Tom Kitten, Squirrel Nutkin, and the rest. Children never tire of these stories.

Why the Morning Glory Climbs, in Miss Bryant's "How to Tell Stories" (Harrap), is a simple fanciful story.

The Hop-about Man, by Agnes Herbertson, in "Little Folks' Magazine," and also in "The Book of Stories for the Story-Teller," by Fanny E. Coe (Harrap), is quite a pleasing modern, romantic fairy tale for little ones. They like the song of the little blue shoes :

" Ring-a-ding-dill, ring-a-ding-dill,
The Hop-about-Man comes over the hill,
Why is he coming, and what will he see ?
Rickety, rickety,—one, two, three."

But such a story as this fades into insignificance beside a perfect story, such as Oeyvind and Marit, by Björnstjerne Björnson. ("The Book of Stories for the Story-teller," by F. E. Coe, Harrap). Oeyvind and Marit is perhaps the finest example of a modern realistic fairy tale. It is indeed so realistic that we ought perhaps not to classify it under fairy tales.

It is a story of two children and a goat, simple and true to life. The fairy element comes in in the rhymes which the mother sings to Oeyvind. She sings to him what the animals say.

"So she told him how once everything could talk: 'The mountain talked to the stream, and the stream

to the river, the river to the sea, and the sea to the sky.' But then he asked if the sky did not talk to anyone: 'And the sky talked to the clouds, the clouds to the trees, the trees to the grass, the grass to the flies, the flies to the animals, the animals to the children, the children to the grown-up people. . . .' Oeyvind looked at the mountain, the trees, and the sky and had never seen them before."

Children enjoy the talking rhymes of the mother.

"What does the cat say?" asked Oeyvind pointing. His mother sang :

"At evening softly shines the sun,
The cat lies lazy on the stone.
Two small mice,
Cream, thick and nice,
Four bits of fish,
I stole behind a dish,
And am so lazy and tired,
Because so well I have fared."

Another modern fairy tale far less simple than the above but loved by many children must be mentioned here. Barrie's "Peter Pan" (Illustrated by Rackham, Scribner), "Peter and Wendy" (Scribner). M. Maeterlinck's "The Blue Bird," belongs to the Junior and Senior Schools. Other good modern fairy tales can sometimes be found in children's magazines. A further list will be found at the end. Here we have dealt with the most striking. See also the section on Modern Household Tales.

(2) *Modern Animal Tales*

Besides the animal stories mentioned above, some stories can be adapted from such books as, "Wild Animals I Have Known" by Ernest Thompson Seton. All children of six and seven

like the story of Raggylug. This is given in "How To Tell Stories to Children" (S. C. Bryant, Harrap). Other simple animal tales will be found in the next section.

(3) *Modern Household Tales (including many animal tales)*

Modern household tales differ from the traditional ones. The modern household tale is the outgrowth of a need for home and kindergarten story material. It has, therefore, a very different point of view from the folk tale.

Under this heading we can with careful search find a great variety of material.

Below are given some typical collections of household stories: "A Story Garden" by Maud Lindsay (Harrap). These stories are suitable for children of three to five. They are about little children getting up and going to sleep, playing, buying toys, losing toys, and so on. They are well told, simple, and in touch with child life, so that they form a valuable collection for the Infant School teacher.

"Mother Stories" by Maud Lindsay (Harrap, 3s. 6d.). These stories are suitable for children five and six years old. Some are about animals, such as, Mrs. Tabby Gray and The Little Gray Pony. They are all about homely doings, and many contain charming little rhymes: ~

"What shall I do? What shall I do?
My little grey pony has lost a shoe!"

"More Mother Stories" by Maud Lindsay (Harrap). These stories are suitable for five-year-old children. Here again we have many simple

stories of well-known animals, such as, Mrs. Specklety Hen, The Little Pig, Patsy the Calf, etc. Little ones are particularly fond of the story of The Little Pig.

"Stories to Tell the Littlest Ones" by Sara Cone Bryant (Harrap). These stories are suitable for little ones from two to five. The book is a valuable collection of homely stories, short and simple.

"Story of Little Black Sambo" by Helen Bannerman (Chatto & Windus, 1s. 6d.). Suitable for children of four years old.

"In the Child's World" by Emilie Poulsson (Philip & Sons). Many of these stories are very realistic. The Discontented Pendulum, by Jane Taylor, however, and some others in this book are purely fanciful tales.

"The Golden Windows" by Laura E. Richards (H. R. Allenson, Ltd., 2s. 6d.). Children like the story of The Pig Brother. But many of these stories in "The Golden Windows" are too difficult for children in the Infant School.

Note

The following sources of stories have not been mentioned or dwelt upon because they are not so well suited for the Infant School.

(1) Modern Fables, such as, "English Fables" by Gay, "French Fables" by La Fontaine, "Russian Fables" by Kriloff, etc. These should be left for the Junior and Senior Schools.

(2) Parables and Allegories.

(3) Epic Tales, such as, "The Robin Hood Ballads," "The Idylls of the King," "Stories of Siegfried," "Stories of Beowulf," the "Song of Roland,"

etc., etc. These are rightly studied in the Junior and Senior Schools. See volumes of "Modern Teaching" on Junior and Senior English.

But we ought to mention one epic here that is often studied, in part, in the Infant School and is perhaps not out of place there, namely, *Hiawatha*. This should be studied and used by

every student of story-telling, but not necessarily in the Infant School. On the whole we should leave it for the Junior School.

(4) Biographical Tales as an introduction to history. These are dealt with in the volume on "Approach to History." They need careful selection and treatment.

CHAPTER IV

SOME STORIES TO TELL

Stories for the Babies and Younger Children: A Morning Story about the Child Himself; Baby's Breakfast; Ringely Ringely, another Breakfast Rhyme; Johnny's Breakfast; A Story about Baby's Kitten; The Story of a Little Dog; The Forgetful Kitten; Breakfast on the Farm; The Story of Baby's Blanket; The Story of a Runaway Donkey; Good Night, My Dears; All to Bed; The Little Pig; Going to Town; Dark Pony; I Won't Wait; A Teeny-Tiny Story; Who Will Buy My Baby?; Going Home; How Kitty Found a Home; The Little Spider's First Web; The Wishing Book; The Shiny Little House.

ONLY a few examples of stories for little ones younger than three or four are given. These stories, as we have said before, need to be written or composed for each individual child, since most of them must be about the child himself and familiar people, animals and things—father, mother, auntie, kitty, doggy, etc.

The Mother Goose Rhymes and finger plays will also provide stories for the very early years.

• Many simple stories for little ones can be made up about pictures, large pictures of animals, engines, toys, etc. Some of the pictures given in this book can be used in this way, for example the pictures of the rabbits that illustrate the story Good Night, My Dears. Many other stories can be made up about Hop, Skip, Jump, and Run. Little boys will like simple stories about the engine that illustrates the story Going Home, Fig. 8. They can make up stories themselves or complete or act simple stories like this:

PUFF, PUFF, THE ENGINE

I am the big engine, puff, puff. I want to go, puff, puff.

This is your coal, Engine. Soon you can go.

Puff, puff, I want to go.

This is your water, Engine. Soon you can go.

Puff, puff, I want to go.

This is your oil, Engine. Soon you can go.

Puff, puff, I want to go.

This is your light, Engine. Soon you can go.

Puff, puff, I want to go.

This is your whistle, Engine. Soon you can go, with a toot, toot, toot, and a puff, puff, puff.

Now you have coal, now you have, etc., etc.

Then the engine speaks: Now I have coal, now I have water, etc., etc.

Many pictures can be drawn on the board as the story is told. Little ones like to see a picture grow, and it encourages them to draw and to talk about their drawings.

• • A MORNING STORY ABOUT THE CHILD HIMSELF

(For the baby of two or three.)

Once there was a baby boy who slept in a little bed all night. His eyes were shut like this (where possible stories for babies must be explained by actions). In the morning the sun looked in and kissed him. He opened his eyes. Then his mother came in and kissed him. She took off his white nightie and bathed him. Then she put on his stockings and combed his hair

and dressed him. When he was dressed he went trot, trot, out of the room, and tramp, tramp, tramp down the stairs on his father's shoulders.

(Only such details should be put in the story as have really happened to the child. Telling the child in this way the things that he does helps him to organise his thoughts.)

Many of the stories for the babies will be told in rhyme; for example, *Baby's Breakfast*, by Emilie Poulsen :

Baby wants his breakfast,
Oh ! what shall I do ?
Said the cow, " I'll give him
Nice fresh milk—moo-oo ! "

Said the hen, " Cluck-a-cluck !
I have laid an egg
For the Baby's breakfast—
Take it now, I beg ! "

And the buzzing bee said,
" Here is honey sweet,
Don't you think the Baby
Would like that to eat ? "

Then the baker kindly
Brought the Baby's bread.
" Breakfast is all ready,"
Baby's mother said.

" But before the Baby
Eats his dainty food,
Will he not say ' Thank you ! '
To his friends so good ? "

Then the bonny Baby
Laughed and laughed away.
That was all the " Thank you "
He knew how to say.

'RINGELY RINGELY

(This story about breakfast pleases because of its sound.)

Ringely ringely dah-re-roon,
My baby has slept till almost noon ;
Ringely ringely dah-re-roon,
My baby shall have his breakfast soon.



FIG. 1.—THE PUPPY THAT RAN AFTER HIS TAIL AND PLAYED WITH KITTY IN THE STORY "THE FORGETFUL KITTEN."

Ringely ringely dah-re-roon,
Here's his milk, and here's his spoon ;
Ringely ringely dah-re-roon,
He'll be a month older when comes next moon.

MRS. FOLLEN.

JOHNNY'S BREAKFAST

A spoonful for the Teddy Bear,
Then one for Baby John ;
A spoonful now for Bunny dear,
Another one for John ;
One for the smiling cow down there,
A little one for John ;
One for the Lamb—why I declare !
The bread and milk's all gone !

R. H. ELKIN.

A STORY ABOUT BABY'S KITTEN

This is baby's kitten.
He says meow, meow !
He has two bright green eyes. Meow,
meow !
He has two pointed ears. Meow, meow !

He has little white teeth and whiskers.
Meow, meow!

He has soft fur, to stroke like this, like this.

He has soft little feet to walk upon, like this, like this!

He has a little red tongue to lap milk with.

And a little voice to say meow, meow, meow, especially when he wants milk.

(This story can be made as long as necessary. Children of four may sometimes give suggestions themselves.)

THE STORY OF A LITTLE DOG

(For children of three or four.)

Once upon a time a little brown dog saw the tip of his tail. He tried to catch it. He ran round and round and round. He looked like a brown ball. But of course he could not catch his tail, because it went as fast as he went. Then this tired, foolish little dog ran home to his mother; his mother licked him and told him that only puppies ran after their tails; he must grow into a wise dog. He is trying to be a wise dog in the picture (Fig. 1).

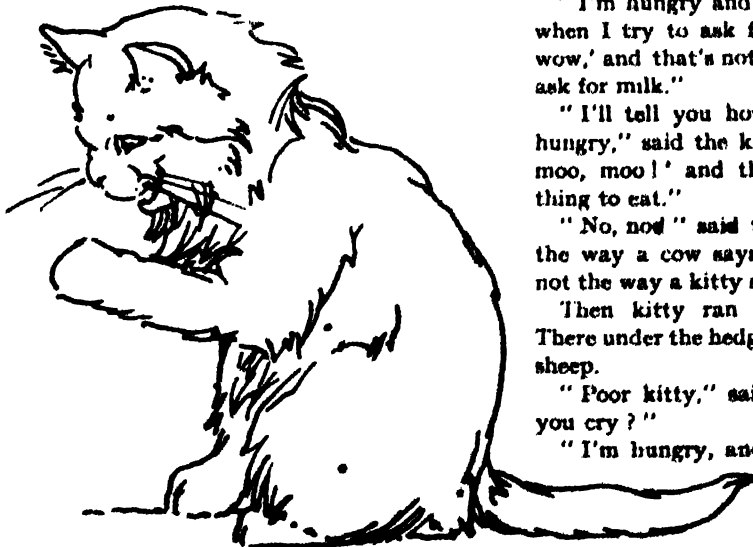


FIG. 2.—THE FORGETFUL KITTEN. SHE IS TRYING TO SAY "ME-OW, ME-OW."

THE FORGETFUL KITTEN

(For children of four.)

Once upon a time there was a little kitten who did not listen to her mother. This little kitten spent all her time playing with some little puppies and talking to them. She played with the puppy in the picture (Fig. 1).

One day she wanted some milk, so she ran to find her mistress. As she ran she found she had forgotten kitten talk, she could only say "How-wow-wow" like a little puppy.

So she stopped running and began to cry. As she sat crying a horse came up.

"Poor kitty," said the horse, "why are you crying?"

"I'm hungry and I want some milk, but when I try to ask for it I say 'Bow-wow-wow,' and that's not the way a kitty asks for milk."

"I'll tell you how to say you're hungry," said the kind horse. "Say, 'Neigh, neigh, neigh,' and then you will be fed."

"No, no," said the poor little kitty, "that is the way a horse says he is hungry, not the way a kitty talks." Then kitty ran crying down the road until she met a cow.

"Poor kitty," said the cow, "why are you crying?"

"I'm hungry and I want some milk, but when I try to ask for it I say 'Bow-wow-wow,' and that's not the way for a kitten to ask for milk."

"I'll tell you how to say that you are hungry," said the kind cow. "Say, 'Moo, moo, moo!' and then you will get something to eat."

"No, no," said the poor kitty, "that is the way a cow says she is hungry, that is not the way a kitty says she is hungry."

Then kitty ran into a field to think. There under the hedge she saw a white woolly sheep.

"Poor kitty," said the sheep, "why do you cry?"

"I'm hungry, and when I try to say, 'I want some milk,' I say 'Bow-wow-wow!' and that is not the way for a kitty to ask for milk."

"I will tell you how to say that you are hungry," said the kind sheep. "Say 'Baa-baa-baa,' then you will soon get some food."

"No, no!" said kitty, "that is the way a sheep says she is hungry. That is not the way a kitty talks."

Then the poor little kitty thought she would find her mother. Just at the gate she met a little hen.

"Poor kitty," said the little hen, "why are you crying?"

"I'm hungry, and when I try to say I'm hungry, I say 'Bow-wow-wow,' and that is not the way for a kitty to say that she is hungry."

"Oh!" said the little hen, "I will tell you how to say that you are hungry. Say 'Cluck, cluck, cluck!'"

"No, no," said kitty, "that is the way a hen talks. That is not the way for a kitty to say that she is hungry."

Then kitty ran on to the barn, and who should come out of the barn but her own mother. When she heard what the trouble was she said, "I will tell you how a kitty says she is hungry. Say 'Meow, meow, meow.'"

"Yes," said the kitty, "that is how a kitty talks."

And she ran to her mistress as fast as she could and said "Meow, meow, meow," and her mistress gave her some milk. After that the little kitty listened to her mother every day though she still went to play with the puppies sometimes. You can see Kitty in the picture (Fig. 2).

BREAKFAST ON THE FARM

Hen : Cluck ! Cluck ! Cluck !
I want my breakfast.
Cluck ! Cluck ! Cluck !
Who will get my breakfast ?

Chick : Peep ! Peep ! Peep !
I want my breakfast too.

Cow : Moo ! Moo ! Moo !
I want my breakfast.
Moo ! Moo ! Moo !
Who will get my breakfast ?

Pig : Humph ! Humph ! Humph !
I want my breakfast.
Humph ! Humph ! Humph !
Who will get my breakfast ?

Little Pig : Wee ! Wee ! Wee !
I want my breakfast too.

Duck : Quack ! Quack ! Quack !
I want my breakfast.
Quack ! Quack ! Quack !
Who will get my breakfast ?

(Other animals can be added as desired—the dog, cat, pigeons, etc.)

A little boy came out of the house.

He fed the hen. He fed the chick. He fed the cow. He fed the pigs. He fed the duck.

The hen said, "Cluck, cluck ! I thank you, little boy."

The chick said, "Peep, peep ! I thank you too."

The cow said, "Moo, moo, moo ! I thank you."

The pig said, "Humph, humph ! Little boy, thank you."

The little pig said, "Wee, wee, wee ! I thank you too."

The duck said, "Quack, quack, quack ! You have my thanks."

THE STORY OF BABY'S BLANKET

Once a little Baby,
On a sunny day,
Out among the daisies
Took his happy way.
Little lambs were frisking
In the fields so green,
While the fleecy mothers
All at rest were seen.

For a while the Baby
Played and played and played ;
Then he sat and rested
In the pleasant shade.
Soon a sheep came near him,
Growing very bold,
And this wondrous story
To the Baby told :

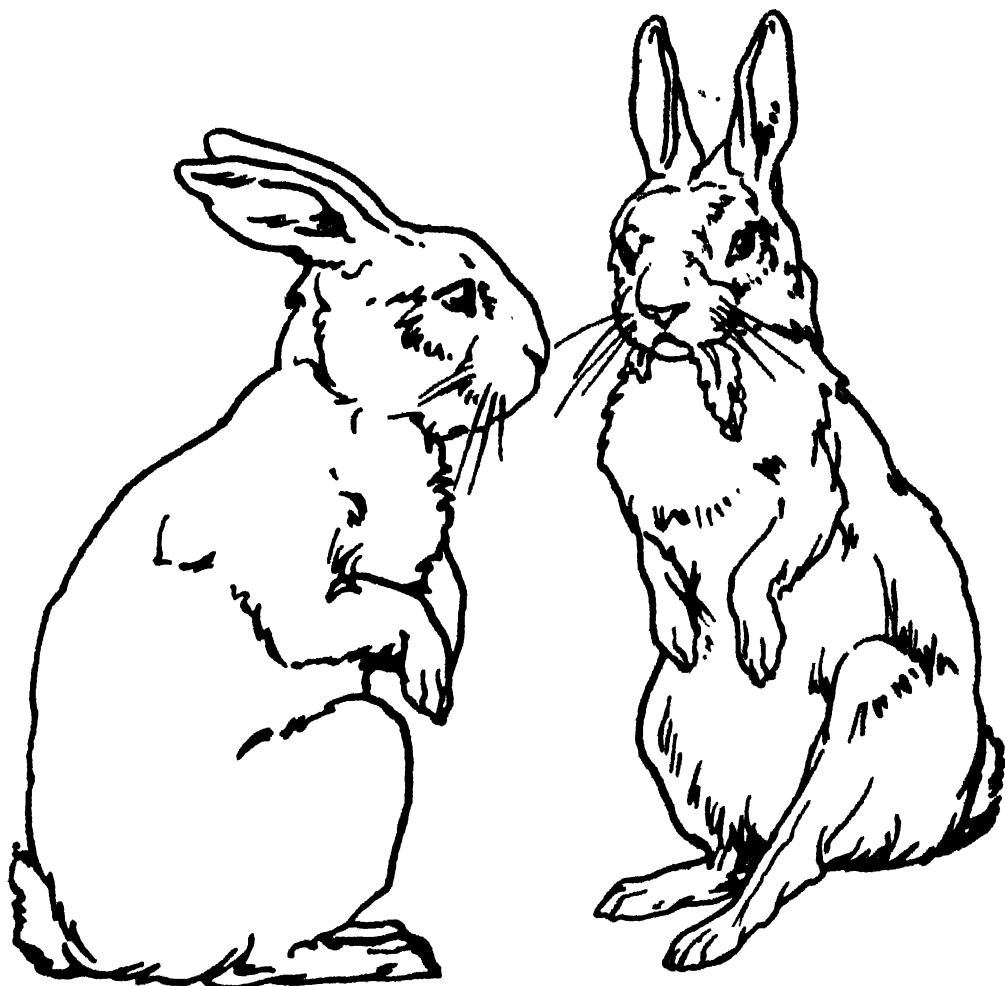


FIG. 3.—MR. AND MRS. RABBIT IN THE STORY "GOOD NIGHT, MY DEARS."

These rabbits can be traced and cut from brown paper to form a frieze.

"Baby's little jumper,
Socks and worsted ball,
Winter cap and mittens,
And his flannels all,
And his pretty gaiters,
Warm and soft and fine,
Once as wool were growing
On this back of mine!

"And the soft bed blankets,
For his cosy sleep,
These were also given
By his friends, the sheep."
Such the wondrous story,
That the Baby heard:

Did he understand it?
Not a single word!

EMILIE POULSSON (*adapted*).

THE STORY OF A RUNAWAY DONKEY

A sturdy little Donkey,
All dressed in sober grey,
Once took it in his long-eared head
That he would run away.

So when a little open
He saw the stable door,
He ran as if he never would
Come back there any more.

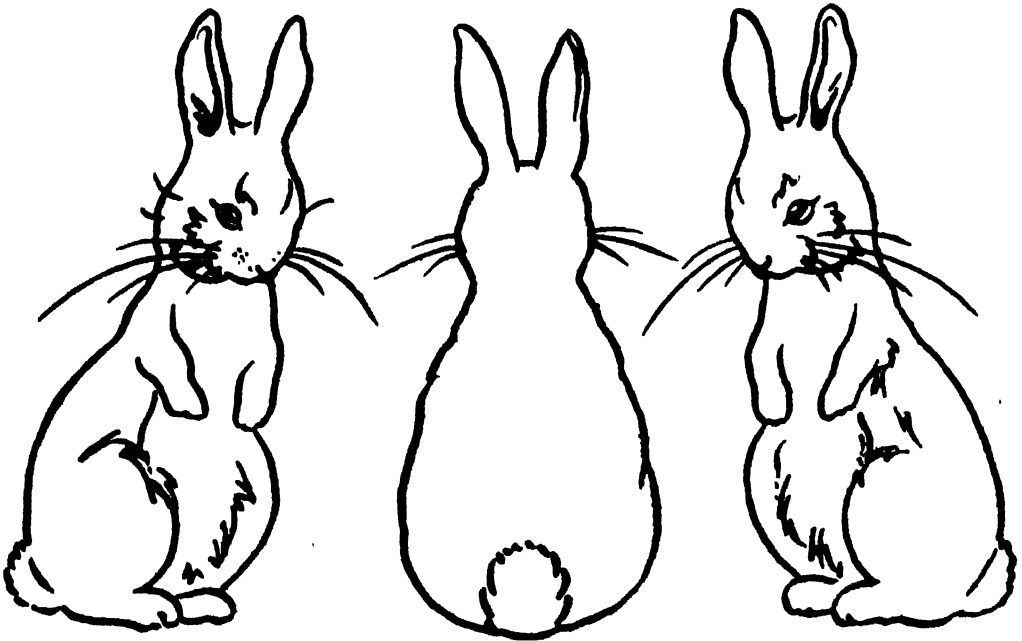
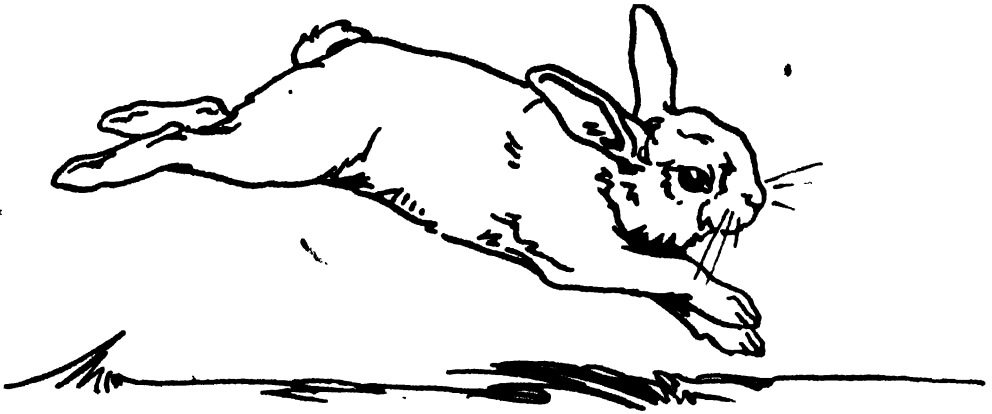


FIG. 4.—THE BABY RABBITS IN THE STORY "GOOD NIGHT, MY DEARS."

These can be traced and cut from brown paper to form a frieze with their father and mother.

Away that Donkey galloped
And ran and ran and ran,
And ran and ran and ran and ran,
And Ran and RAN and RAN!

And he never came back!

GOOD NIGHT, MY DEARS

Here are Mr. and Mrs. Rabbit (show picture, Fig. 3). And here are their baby rabbits (Fig. 4). The babies have funny

little names. Their names are Jump, Hop, Skip, and Run. Do you see their long ears? Jump, Hop, Skip, and Run play all day in the sunshine. When night comes their mother says: "Now, babies, it is time to go to bed. Your father and I are going out to look for food for you. I am going to the garden for cabbage leaves. Your father is going into the cornfield. Go right off to sleep."

"Good night, Mother," said the babies.

"Good night, Jump; good night, Hop; good night, Skip; good night, Run. Good night, my dears," said their mother as she hopped away.

A similar story to this can be told about little mice or little kittens going to bed. Then the children will enjoy this rhyme:

ALL TO BED

A candle, a candle, to light me to bed;
A pillow, a pillow, to tuck up my head.
The moon is as sleepy as sleepy can be,
The stars are all pointing their fingers at me;
The little field-mice away down in their nest
Are rocking their tired little babies to rest.

So give me a blanket
To tuck up my toes,
And a soft little pillow
To snuggle my nose.

LEROY F. JACKSON.

(Later on these very short stories make good reading charts for little beginners. The fact that they know the story helps them to read it.)

THE LITTLE PIG

(A simple homely story for the youngest children. It helps to teach the numbers 1, 2, and 3.)

Once there was a little pig. He lived with his mother in a pen. One day he saw his four little feet.

"Wee, wee, Mother!" he said. "See my four little feet! What can I do with them?"

His mother said, "Humph, humph! You clever little pig. You can run with them."

The little pig ran and ran. He ran round and round the pen.

One day he found his two little eyes. "Wee, wee, Mother!" he said. "See my two little eyes! What can I do with them?"

His mother said, "Humph, humph! You clever little pig. You can see with them."

The little pig looked and looked. He saw his mother. He saw the cow. He saw the sheep. He saw the cat and the dog.

One day he found his two little ears.

"Wee, wee, Mother!" he said. "See my two little ears! What can I do with them?"

His mother said, "Humph, humph! You clever little pig. You can hear with them."

"So I can, Mother," he said. He heard the cow say, "Moo, moo!" He heard the sheep say, "Baa, baa!" He heard the cat say, "Mew, Mew!" He heard the dog say, "Bow, wow!"

One day he found his one little nose.

"Wee, wee, Mother!" he said. "I have a little nose. See my one little nose! What can I do with it?"

His mother said, "Humph, humph! You clever little pig. You can smell with it. Can you smell your dinner?"

The little pig smelled and smelled. He wanted his dinner. He could not smell it.

"Wee, wee, wee!" he said.

Soon he found his one little mouth.

"Wee, wee, Mother!" he said. "I have a little mouth. See my one little mouth! What can I do with it?"

His mother said, "Humph, humph! You clever little pig. You can eat with it. You can eat your dinner."

"Wee, wee, wee!" said the little pig. "Where is my dinner? I am so hungry."

Soon a girl came to the pen. She had something for piggy. She said, "Come, Piggy! Come Piggy, come! I have your dinner. It is a good dinner." The little pig heard with his two little ears, he smelt with his one little nose, he ran with his four little feet, and he gobbled up his dinner with his one little mouth.

(Folk Tale)

(Little children will like to model the little pig and his mother in clay, see Fig. 5. They can make a pen of match-sticks stuck in clay, or build one of match-boxes.)

GOING TO TOWN

"Where are you going, my little cat?"

I am going to town to get me a hat.

What! A hat for a cat!

A cat get a hat!

Who ever yet saw a cat with a hat?

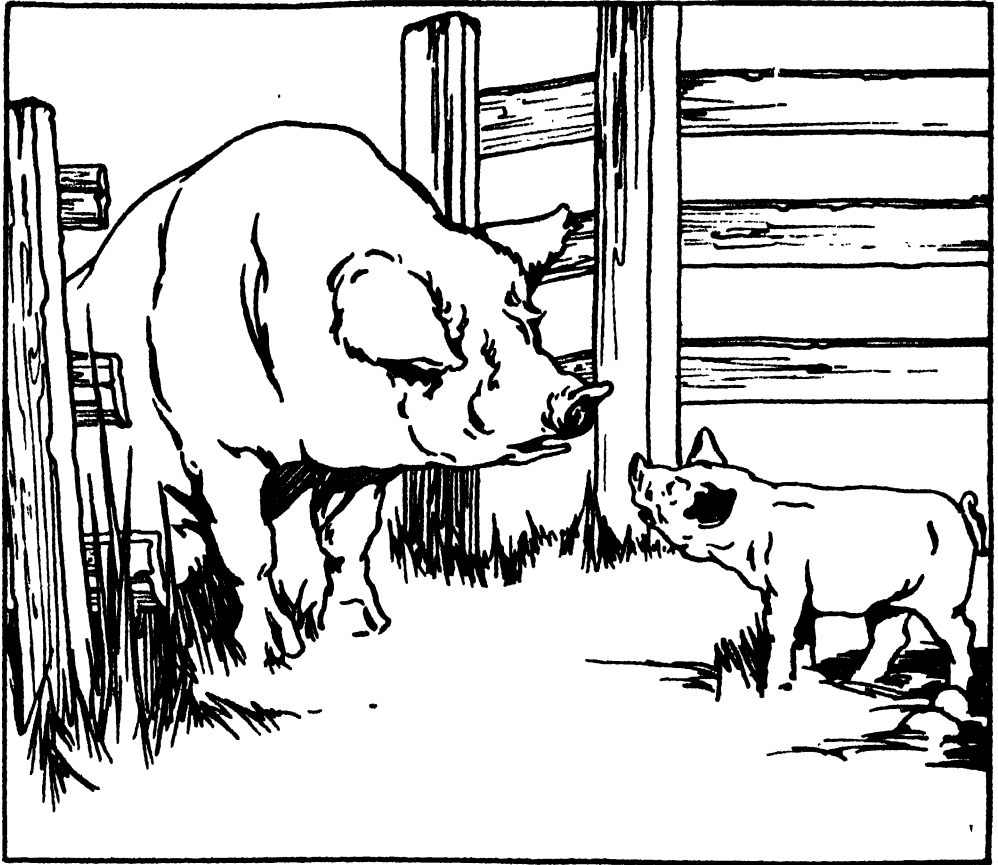


Fig. 5. — THE LITTLE PIG WHO FOUND HIS FOUR LITTLE FEET IN THE STORY "THE LITTLE PIG."

Where are you going, my little kittens?
We are going to town to get us some mittens.
What! Mittens for kittens!

Do kittens want mittens?
Who ever yet saw little kittens with mittens?

Where are you going, my little pig?
I am going to town to get me a wig.
What! A wig for a pig!

A pig in a wig!
Who ever yet saw a pig with a wig?

ELIZA LEE FOLLEN.

(Little ones sometimes like to add
to this story themselves.)

DARK PONY

Dark was a little Pony. He took the
children to ride at night. Guess where he

took them. Why, he took them to Sleepy-
town. He came by when the sun went
down. He came galloping, galloping, gal-
loping.

One night Noddy saw Dark Pony. Noddy
said:

"Take me down
To Sleepy-town."

"Get on," said Dark Pony.

Noddy jumped up on Dark Pony, and
away they went galloping, galloping,
galloping.

Then Noddy saw Dark Pony. She cried:

"Let me go too.
Take me with you."

Dark Pony stopped galloping, and Noddy
jumped up behind Noddy.

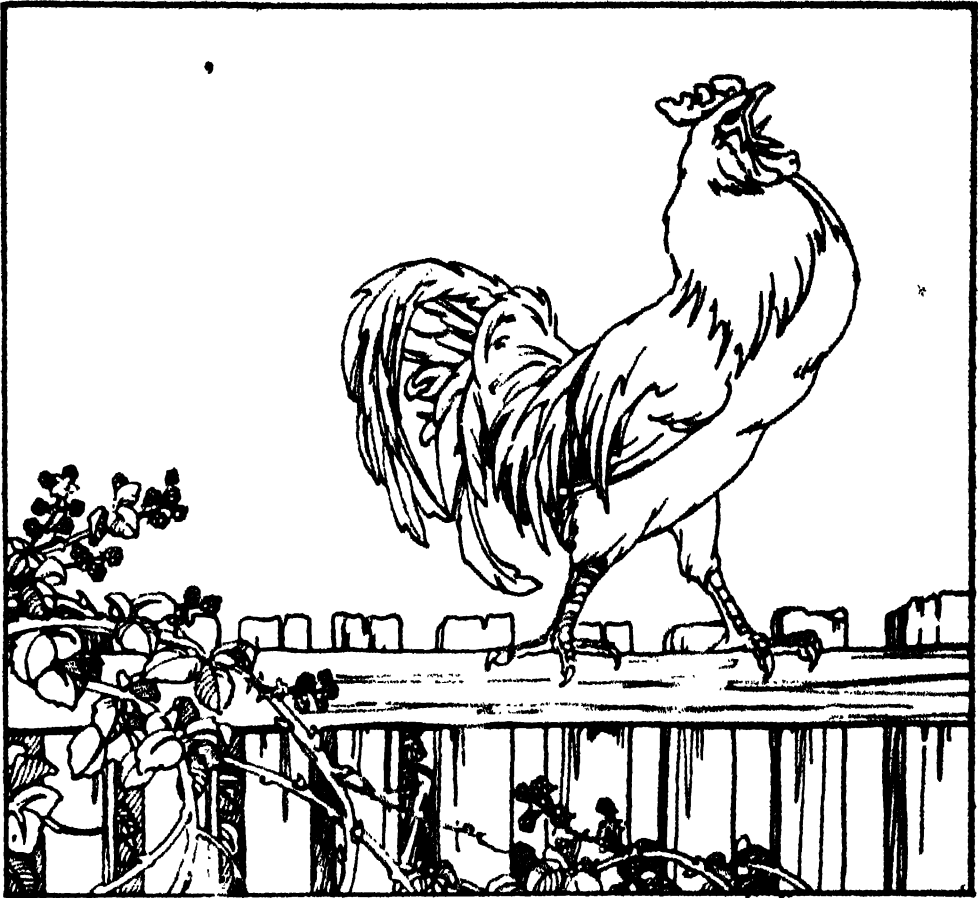


FIG. 6.—"I SHALL HAVE JUST AS MANY GREEN BERRIES AS I CAN EAT." (THE LITTLE COCK IN THE STORY "I WON'T WAIT.")

"Go, go, Dark Pony," she said, and away they went galloping, galloping, galloping.

A white dog saw Dark Pony coming. He said:

"Bow, wow, wow!
Take me now."

Dark Pony stopped galloping. Noddy jumped down to get the dog. Then he jumped up on the pony.

"Go, go, Dark Pony," he said, and away they went galloping, galloping, galloping.

A black cat saw Dark Pony galloping down the road. The cat said:

"Mew, mew, mew!
Take me too."

Dark Pony stopped galloping.

Niddy jumped down to get the cat. Then she jumped up on the pony.

"Go, go, Dark Pony," she said. Away they went, galloping, galloping, galloping. How happy they were! Each one sang a little song, but soon the song stopped. Then Dark Pony stopped too, for he had come to Sleepy-town. All the eyes were shut. Niddy and Noddy and White Dog and Black Cat were all fast asleep.

(From "Little Folks' Magazine.")

I WON'T WAIT

THE STORY OF A LITTLE COCK AND A LITTLE
HEN

I. SPRING

In the barnyard where the ducks and chickens lived were two little chickens, a

little cock and a little hen. They loved each other very dearly. The little hen was so gentle and so patient, but the little cock was sometimes very noisy, and he had another very bad habit—he was always in a hurry; he could not wait for anything.

These little chickens took a great many walks together. One day in the spring this little cock and little hen started out for a walk. The sun was so bright and the air was so warm, that the flowers were all nodding and smiling to each other, and they nodded their heads to the little chickens as they passed. The leaves were fresh and green on the trees, and there was a beautiful green carpet on the ground.

The little chickens walked along until they got out into the country, and then they came to a garden with a low fence around it. Looking through the palings, the little cock saw a great many green berries. None of them was ripe, for the sun had not been warm enough.

"Now," said the little cock in a loud voice, "I shall have just as many green berries as I can eat."

"Please don't," said the little hen. "Green berries will make you sick. Wait until they are ripe."

"I won't wait," said the little cock. "You are so foolish, you always want me to wait," and with that he stretched out his wings and flew on to the fence and over the fence. You can see him in the picture (Fig. 6). He ate and ate and ate the green berries. That night when all the chickens were asleep the little cock cried out, "Oh, dear me! I am so sick!"

The little hen ran to him. She did all she could for him. But he was a very sick little cock, and he was sick for many days. But at last he grew well again and noisy.

II. SUMMER

The spring passed and summer came. It was so warm that the little hen and the little cock thought they would like to walk out in the country.

The sun shone so brightly that they became very hot as they walked along the dusty

road. After a while they came to a clear beautiful spring.

"How hot I am!" said the little cock. "Now I shall have a good drink of cool water."

"Wait," said the little hen. "You are too hot to drink now. Sit under these shady trees and get cool first."

"I won't wait," said the little cock. "You always tell me to wait. I will drink now," and with this he put his bill down in the water and threw his head back, and drank and drank until he could drink no more.

That night the little cock was ill again. The little hen did all she could for him. But he was sick for a long time. When he got better he was just as noisy as ever.

III. AUTUMN AND WINTER

Summer passed, autumn came, and Jack Frost had made a visit to the little streams, so that they had only a thin sheet of ice over them.

One fine day the little hen and the little cock went out for another walk. They came to a pond; the little cock stepped on the ice and begged the little hen to skate with him.

"No," said the little hen, "the ice is too thin; it will break; we had better wait."

"I won't wait," said the little cock, "you are always talking about waiting." With this he skated off nearly to the middle of the pond, came back and begged the little hen to come with him.

"No," said the wise little hen. Then he skated towards the middle, and came back and begged again.

"No," said the little hen.

The third time he said he would skate right across the pond. The little hen sat down and cried. "He will drown!" she said. "I know he will."

Away went the little cock crowing, "I told you it was all right. I told you, I told you." He got to the middle—and then—crack! pop! went the ice under him. The little cock fell into the water and was never seen again.

ROBERT SOUTHBY.



FIG. 7.—THE LITTLE FROG JUMPING TO HIS HOME ON THE BANKS OF THE POND, IN THE STORY "GOING HOME."

A TEENY-TINY STORY

(An old story based on Teeny-Tiny, in Joseph Jacobs's "English Fairy Tales.")

Once upon a time there was a teeny-tiny woman. She lived in a teeny-tiny house in a teeny-tiny village. Now, one winter evening the teeny-tiny woman felt a teeny-tiny bit tired; so she went up her teeny-tiny stairs to her teeny-tiny bed. And when this teeny-tiny woman had been to sleep a teeny-tiny time, she was awakened by a teeny-tiny noise.

"Tap, tap, tap! Tap, tap, tap!"

And this teeny-tiny woman was a teeny-tiny bit frightened, so she hid her teeny-tiny head under the teeny-tiny clothes and went to sleep again. And when she had been to

sleep again a teeny-tiny time, she heard the teeny-tiny noise again a teeny-tiny bit louder.

"Tap, tap, tap! Tap, tap, tap!"

This made the teeny-tiny woman a teeny-tiny bit more frightened, so she hid her teeny-tiny head a teeny-tiny bit farther under the teeny-tiny clothes. And when the teeny-tiny woman had been to sleep again a teeny-tiny time, the teeny-tiny noise came again a teeny-tiny bit louder.

"Tap, tap, tap! Tap, tap, tap!"

And this teeny-tiny woman was a teeny-tiny bit more frightened, but she jumped out of her teeny-tiny bed. She took her teeny-tiny candle in her teeny-tiny hand. Then she stole down her teeny-tiny stairs. She looked under her teeny-tiny table. There was nothing under the table. She looked under the teeny-tiny chair. There was nothing under the chair. She looked

in her teeny-tiny cupboard, and out jumped a teeny-tiny mouse !

"A mouse ! A mouse ! A mouse !" cried this teeny-tiny woman in her loudest teeny-tiny voice, and up her teeny-tiny stairs she ran.

WHO WILL BUY MY BABY ?

One day Mary and her baby brother were in the fields. Mary was singing :

"Who will buy my baby ? Who will buy my baby ?

In all the green world there is nothing so fair

As my little baby with golden hair."

An old sheep walked up and looked at the baby. "A very fine baby," she said. "But has he only two legs ?"

"Yes," said Mary. "Only two."

"Has he any wool ?" said the old sheep.

"No, he has no wool," said Mary.

"I don't want your baby," said the old sheep.

"In all the green world there is nothing so sweet

As my little lamb, with his nimble feet ;
With his eyes so bright, and his wool so white,

Oh ! he is my darling, my heart's delight."

The old sheep walked away and Mary went on singing :

"Who will buy my baby ? Who will buy my baby ?"

An old hen came walking by. She heard Mary's song. She stopped to look at the baby.

"Has your baby feathers ?" she asked.

"No," said Mary. "Baby has no feathers."

"Then he hasn't got wings," said the old hen. "I don't want your baby."

In all the wide world there is nothing so sweet

As my little chicks with their feathers so neat."

The old hen walked away, and Mary went on singing :

"Who will buy my baby ? Who will buy my baby ?

In all the green world there is nothing so fair,

As my little baby with golden hair."

An old cat came up and looked at the baby.

"A very fine baby," she said. "Can he climb trees ?"

"No, no," said Mary. "He can't climb trees yet. He is too young."

"How many feet has he ?" asked the cat.

"Only two," said Mary.

"I suppose he has no tail ?" went on the cat.

"Oh no, he has no tail," said Mary.

"Then I don't want your baby," said the old cat.

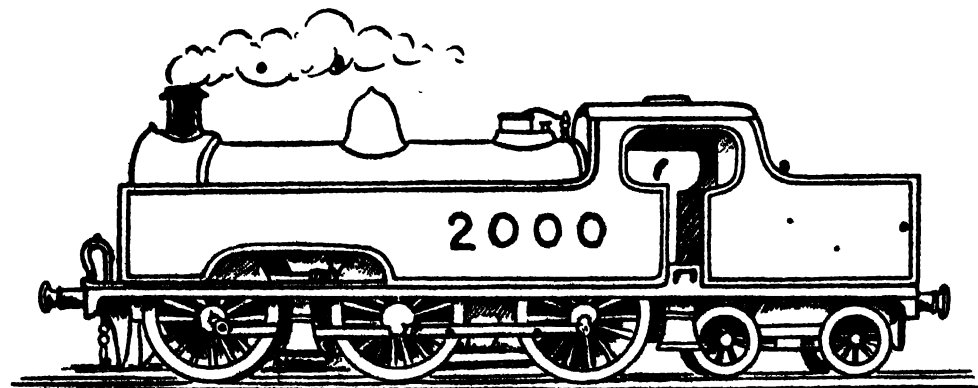


Fig. 8.—"THERE WAS A LITTLE ENGINE AND HE PUFFED, PUFFED, PUFFED. HE PUFFED TO HIS HOME IN THE STATION" IN THE STORY "GOING HOME."

"My kittens with tails so cunningly curled,
Are the prettiest things in all the wide
world."

Then Mary went home. She told her mother about the sheep, the hen, and the cat.

Her mother said, "That is the way with all mothers. Each thinks her baby the finest. I know that:

In all the wide world there is nothing so fair

As my little baby with golden hair."

(Adapted from poem called "Nursery Song.")

GOING HOME

(This story can be told with pictures. It can easily be played by little children. Later it can be used for a first reading lesson. Figs. 7 and 8 show two pictures.)

There was a little bird and he flew, flew, flew, he flew to his nest in the tree.

There was a little rabbit and he hopped, hopped, hopped, he hopped to his home in a hole.

There was a little frog, and he jumped, jumped, jumped, he jumped to his home on the banks of the pond.

There was a little engine and he puffed, puffed, puffed, he puffed to his home in the station.

There was a little girl and she walked, walked, walked, she walked to her home in a house.

There was a little boy and he ran, ran, ran, he ran to his home in a house.

Can you go home in all these different ways?

HOW KITTY FOUND A HOME

"I have no home," said little Kitty, a small black cat. "I will look for a home. If I am a good cat, someone will be glad to have me."

So Kitty walked and walked and walked on her four soft paws. At last she came to a large house. On the steps sat a dog. "Bow wow wow," said the dog.

"This is not the home for me," said Kitty as she ran away. "The dog does not like me. I must look again."

Kitty walked and walked until she came to another house. On the steps sat a large grey cat. "Meow, Meow, M-E-O-W!" said that large grey cat, his voice getting louder and louder.

"This is not the home for me," said Kitty as she ran away. "That grey cat does not like me."

She ran down the street. When she felt safe from the big grey cat she began to walk.

She walked on and on until she came to a little house. There were trees around it. There were flowers in the garden. A little baby played in the garden. She saw the little cat. She called, "Kitty! Kitty! Kitty!"

"Mew, mew, mew," said Kitty. "This is the home for me." She walked to the baby and sat down by her.

"What a good little cat," said the mother when she came out and saw her. "What is your name, cat?"

"Purr, purr, purr," said Kitty.

"Kitty, Kitty," said the baby.

"We will call you Kitty," said Mother. She gave Kitty a saucer of milk.

"I like my home," purred Kitty. She washed her little face. She washed her little paws. She played with the baby in the bright sunshine.

THE LITTLE SPIDER'S FIRST WEB

(This is a very simple folk tale. It can be told and enjoyed in connection with the nature study lessons.)

A big spider saw a little spider. The little spider was spinning a web. It was her first web. As the big spider watched, he swung up and down on his web. A fly saw the big spider on his web. He said, "Why do you swing, big spider?"

"I swing because little spider is spinning her first web."

The fly said, "Then I will buzz and buzz and buzz."

A bee heard the fly buzz. She said, "Why do you buzz, little fly?"

"I buzz because little spider is spinning her first web."

The bee said, "Then I will hum and hum and hum."

A cricket heard the bee hum. He said, "Why do you hum, little bee?"

"I hum because the little spider is spinning her first web."

The cricket said, "Then I will chirp and chirp and chirp."

An ant heard the cricket chirp. She said, "Why do you chirp, cricket?"

"I chirp because the little spider is spinning her first web."

The ant said, "Then I will run to and fro, I will run to and fro."

A butterfly saw the ant running to and fro. She said, "Why do you run to and fro, little ant?"

"I run because the little spider is spinning her first web."

The butterfly said, "Then I will fly here and there, I will fly here and there."

A bird saw the butterfly flying here and there. She said, "Why do you fly here and there, butterfly?"

"I fly because little spider is spinning her first web."

The bird said, "Then I will sing."

The children heard the bird sing. They saw the butterfly fly about here and there. They saw the little ant run to and fro. They heard the cricket chirp. They heard the bee hum. They heard the fly buzz. They saw the big spider swing on his web. They saw the little spider spinning her first web. The children were very happy and they ran about and played.

(Children like trying to draw the little spider's first web, Fig. 9. They can try on the blackboard or on large sheets of white paper with black crayons. They will enjoy playing this story. They must be shown pictures of the cricket and the ant, Fig. 10. They can try to draw butterflies and bees and flies for themselves.)

THE WISHING BOOK

Long, long ago there lived a little girl. She was so little that people called her Wee-wee.

Wee-wee had no father or mother. She had no home. She wandered about in

the woods and fields, and kind people gave her food to eat.

One day poor little Wee-wee got lost in the woods. She sat down under a tree and began to cry.

"Why do you cry, my child?" asked a wee little voice. Wee-wee looked down. There in the grass was the prettiest little fairy that you ever saw.

"Who are you?" asked Wee-wee.

"I am the queen of the fairies. Now tell me why you cry?"

"I cry, fairy queen, because I have lost my way, and I have no father, no mother, no home."

"You poor child," said the fairy. "Don't cry. Look at this pretty picture-book."

The fairy opened a big book and showed Wee-wee many pretty pictures. There were pictures of good things to eat, pictures of pretty clothes, pictures of pretty homes.

"What a pretty book!" said Wee-wee.

"I am glad you like it," said the fairy, "for I am going to give it to you."

"Give it to me!" cried Wee-wee. "Oh, thank you. I shall never be unhappy if I have these pretty pictures to look at."

"This is a fairy wishing-book," said the fairy. "Whenever you want anything, just open your book at the picture of the thing you want and say:

Fairy queen, I call to you,
Make my picture wish come true."

Before Wee-wee could say "Thank you," the fairy flew away.

"Can it be true?" said Wee-wee. "I will try it."

She opened the book at a picture of a bowl of bread and milk and said:

"Fairy queen, I call to you,
Make my picture wish come true."

At once she found in the grass beside her a big bowl of bread and milk.

"This is the best bowl of bread and milk I have ever eaten," she said. "Now I think I shall wish for some clothes."

Opening the book at the picture of the pretty clothes, she said:

"Fairy queen, I call to you,
Make my picture wish come true."



FIG. 9.—THE LITTLE SPIDER'S FIRST WEB.

At once she had new clothes from her hat to her shoes. She began to be very happy.

Then she opened her book at the picture of a little home, with trees growing all around it and a garden. Again she said :

" Fairy queen, I call to you,
Make my picture wish come true."

At once before her was as pretty a little home as fairies could build.

Wee-wee walked inside. Here everything was just as nice as it could be. A bright fire danced in the kitchen fireplace. There were dear little shining pots and pans, little chairs, and a little table spread for supper. Wee-wee ran all over the house, looking at everything.

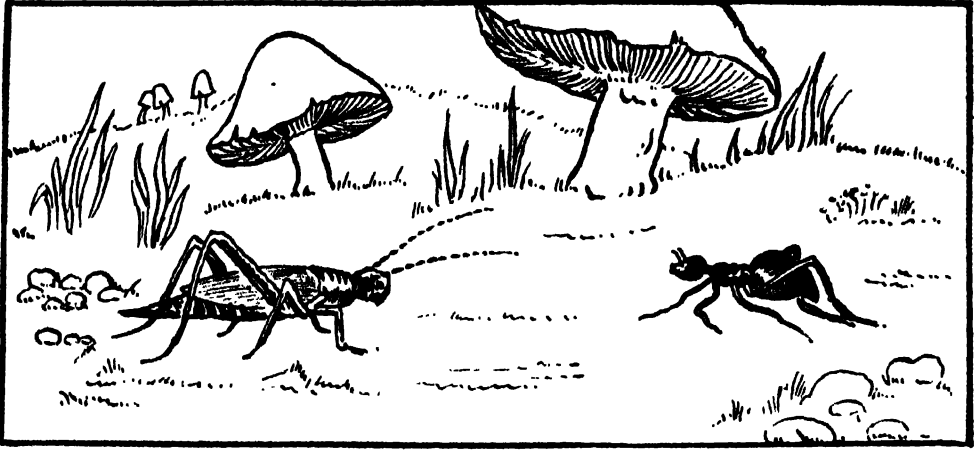


Fig. 10.—" WHY DO YOU CHIRP, CRICKET ? " SAID THE ANT (" THE LITTLE SPIDER'S FIRST WEB ").

" How happy I am ! " sighed Wee-wee, when she went to her little white bed that night.

And so Wee-wee lived happily in her pretty little home. She helped everyone who came to her door and all the birds and beasts who lived in the woods loved her, so she was never lonely.

(Children will enjoy being told this rhyme when they have heard the story of *The Wishing Book*. It tells them the kind of home that Wee-wee wished for and what she did.)

THE SHINY LITTLE HOUSE

I wish, how I wish that I had a little house,
With a mat for the cat and a holey for a mouse,
And a clock going " tock " in a corner of the room,
And a kettle, and a cupboard, and a big birch broom.

To school in the morning the children off would run,
And I'd give them a kiss and a penny and a bun,

But directly they had gone from this little house of mine ;
I'd clap my hands, and snatch a cloth, and shine, shine, shine.

I'd shine all the knives, all the windows, and the floors,
All the grates, all the plates, all the handles on the doors,
Every fork, every spoon, every lid, and every tin,
Till everything was shining like a new bright pin.

At night, by the fire, when the children were in bed,
I'd sit, and I'd knit, with a cap upon my head,
And the kettles, and the saucepans they would shine, shine, shine,
In this teeny little, cosy little house of mine !

NANCY M. HAYES.

CHAPTER V

MORE STORIES TO TELL

Stories for Children of Five or Thereabouts : Why the Cat Washes after Eating ; The Three Brother Mice ; Pussy White, Billy Bob Tail and His Friends ; The Little Rabbit that Wanted Red Wings ; Why Ladybirds Have Spots on Their Wings ; Top-knot ; The Little Black Ant ; Fiddle-Diddle-Dee ; The Tree, the Nest, and the Eggs ; Little White Rabbit.

MANY of the following stories may be found suitable for little ones younger than five. One cannot definitely assign any story to any age. A great deal depends on the child's environment and experiences as well as his mental development. But on the whole each year should see the child ready for a story that leads him farther afield in language and ideas.

WHY THE CAT WASHES AFTER EATING

(This is an old tale that little ones like, especially when they are old enough to have watched their cat washing herself and thought about it.)

One day Mother Mouse said to her little son, "Squeaky, I am going out. He a good little mouse and stay at home all day. The cat may be near."

Then Mother Mouse went out.

Squeaky sat in their snug little hole a long time. He was still a long, long time. Then he said, "The cat is not near and she can't catch me. I will go out and play. I am tired of sitting still."

And out of the hole Squeaky ran. Just then the cat came by. Oh, how frightened Squeaky was! He ran as fast as he could, and he could run very fast. But the cat could run fast too. And the cat caught Squeaky. Poor Squeaky! Poor Squeaky! What could he do?

He thought and he thought as he lay in the cat's mouth. At last he said, "I

know, cat, that you are going to eat me. But you must wash your face first. Every-one washes his face before he eats."

"Yes, yes!" said the cat, "I will wash my face."

And as she said this she let Squeaky go.

"Good-bye, cat," cried Squeaky as he dashed into his hole. "I am glad you wash your face before you eat."

"After this I shall wash my face *after* I eat," said the cat. "I don't care what others do."

And now all cats eat first and wash after. Have you seen your cat do this?

(Old Tale.)

(The children can try to model or draw Squeaky and his mother. They can make a hole for them to live in. The two little mice shown in Fig. 11 can be drawn on the board. The cat can be copied from Chapter IV.)

THE THREE BROTHER MICE

Once there were three mice and a big round cheese. The three mice were brothers. One was called Big Mouse. One was called Little Mouse. One was called Wee Mouse. The brother mice were about to eat the big round cheese. Just then Big Mouse found some holes in the cheese. There were big holes, there were little holes, and there were tiny holes.

Instead of eating the cheese the little mice began to quarrel. They quarrelled about the holes in the cheese.

Big Mouse said, "Brothers, the holes are part of the cheese."

"No, no," said Little Mouse, "the holes are not part of the cheese."

"No, no, no," said Wee Mouse in his wee voice, "holes are holes, and cheese is cheese."

But Big Mouse said, "Oh, Brothers, the holes *are* a part of the cheese. But I will go to Father Mouse. He will tell me about the holes. He will tell me that the holes are part of the cheese."

"No, Father Mouse will tell you that holes are holes and that cheese is cheese," said Wee Mouse in his wee voice.

"Brothers, I will go and see," said Big Mouse.

"All right then, go!" said Little Mouse in his little voice.

"Yes, go!" said Wee Mouse in his wee voice.

So Big Mouse went off and left his two brothers with the big round cheese. But when Big Mouse came back he found there was no cheese.

"How is this, Brothers?" he said. "There is no cheese left. Where is the big round cheese? Where is it?"

Then Wee Mouse answered in his wee voice, "You were right, Big Mouse. You were right about the holes. They are part of the cheese. So we ate the cheese, Brother, and left you the holes."

ENOS B. COMSTOCK.

(*Story slightly adapted.*)

(Little ones will like to draw the big round cheese with holes in it and the three little mice.)

PUSSY WHITE •

Where, where did you go last night?
Tell me, tell me, Pussy White.
Where, where did you go last night?
Tell me, tell me, Pussy White.

I went round and round the house,
But I found no rat, no mouse.
All I found was—listen, now!

A little, little,
small, small,
tiny, tiny,

Bow-wow-wow.

EMILIE POULSSON.

BILLY BOB TAIL AND HIS FRIENDS

Once there was a little boy called Billy Bob Tail. He had no home and he had no friends. So he set out to seek his fortune.

As he walked along he met a cat.

"Mew, mew!" said the cat. "Where are you going, Billy Bob Tail?"

"I am going to seek my fortune."

"May I come with you?"

"No, no, you can't come with me," said Billy Bob Tail. "I don't want a cat."

"But," said pussy, "I have no home and no friends."

"Well, come on then, poor Kitty-cat, only don't scratch me."

So on went Billy Bob Tail and the cat to seek their fortune. In a little while they met a dog.

"Bow, wow!" said the dog. "Where are you going, Billy Bob Tail?"

"I am going to seek my fortune."

"May I come with you?"

"No, no, you can't come with me," said Billy Bob Tail. "I don't want a cat and a dog."

"But," said Bow-wow, "I have no home and no friends."

"Poor old dog! You may come with me. But don't bite me."

So on went Billy Bob Tail, the cat, and the dog to seek their fortune.

After a while they met a cow.

"Moo, moo!" said the cow. "Where are you going, Billy Bob Tail?"

"I am going to seek my fortune."

"May I come with you?"

"No, no, you can't come with me," said Billy Bob Tail. "I don't want a cat and a dog and a cow. "But," said the cow, "my master is going to kill and eat me, so please let me come with you."

"Poor old cow! You may come with me. But don't toss me."

So Billy Bob Tail and the cat and the dog and the cow went on to seek their fortune.

Soon they met a goat.

"Maa, maa!" said the goat. "Where are you going, Billy Bob Tail?"

"I am going to seek my fortune."

"May I come with you?"



Fig. 11.—"SQUEAKY, I AM GOING OUT. BE A GOOD LITTLE MOUSE" ("WHY THE CAT WASHES AFTER EATING").

"No, no, you can't come with me. I don't want a cat, a dog, a cow, and a goat."

"Please take me with you, for I work all day long and I get very little to eat."

"Poor old goat, you shall come with me. I have a cat, a dog, and a cow, and I might as well have a goat. But don't butt me."

So they went on again to seek their fortune, Billy Bob Tail, the cat, the dog, the cow, and the goat. Soon they came to a dark forest.

"We must go into this forest," said Billy Bob Tail, "we may find our fortune there. Don't be afraid. I shall be with you. I can whistle and throw stones. What can each of you do?"

"I can mew and scratch," said the cat.

"I can bark and bite," said the dog.

"I can moo and toss," said the cow.

"I can bleat and butt," said the goat.

"We are all right," said Billy Bob Tail, "come on, all together."

"I see a light in the forest," said the cat. "What is it?"

"Look! it is a house!" cried Billy Bob Tail. "And something growls inside it. Let us creep nearer and make all the noise we can. We will frighten the growling thing away. I will whistle. Now all together."

"Mew, mew, mew!"

"Bow, wow, wow!"

"Moo, moo, moo!"

"Maa, maa, maa!"

And at this terrible noise a brown bear jumped out of the house and ran away.

Billy Bob Tail and his friends went inside and found everything they wanted to make a cosy little home.

"Now," said Billy Bob Tail, "we have found our fortune. This is a good house to live in. We will make it our home."

And so they all lived together happily in the house in the wood.

(*Old Folk Tale.*)

(Little ones enjoy helping to make the noise at the end that frightens away the brown bear.

This story is very useful for the reading lesson because of the repetition. Parts can be written on the board for the children to read.

Children of six and seven will be able to act this story.

This old folk tale is found under many forms. Some of these are discussed in the chapter on "Sources of Stories.")

THE LITTLE RABBIT THAT WANTED RED WINGS

(This is a very pleasant tale of repetition for little children: It is an old folk tale. Different animals appear in different versions. The names of the animals may be altered to suit the understanding of the child. Another simple version of this story will be found in "For the Story Teller," by Caroline S. Bailey, Milton Bradley Co., America.)

Once upon a time a mother rabbit had one child. He was called Little White Rabbit. His two ears were long and pink; his two eyes were bright; his four feet were soft and white. He was a very pretty little rabbit but he was not a happy little rabbit. He wished for everything he saw.

When Mr. Hedgehog went by, Little White Rabbit would call to his mammy, "Mammy, mammy, I wish I had a back full of bristles like Mr. Hedgehog."

When Mr. Squirrel went by, Little White Rabbit would call to his mammy,

"Mammy, mammy, I wish I had a long bushy tail like Mr. Squirrel."

When Mr. Puddle Duck went by, Little White Rabbit would call to his mammy,

"Mammy, mammy, I wish I had two yellow feet like Mr. Puddle Duck."

His mother would always say to him,

"Little rabbit, be happy as you are. Don't wish to be like somebody else."

But every day Little White Rabbit kept on wishing and wishing until his mother grew quite tired with all his wishing.

One day Mr. Wise Owl heard Little White Rabbit wishing, and he said:

"Little White Rabbit, I will tell you how to get your wish."

"Oh do, do!" said Little White Rabbit.

"Just go down to the Wishing Pond and look at yourself in the water. Wish for what you want most. Then turn round three times and you will get your wish."

Off started Little White Rabbit all by himself to the Wishing Pond. When he got there he saw a little red bird with such pretty red wings that he began to wish at once:

"I wish I had two pretty red wings!" he said. As he wished he looked into the

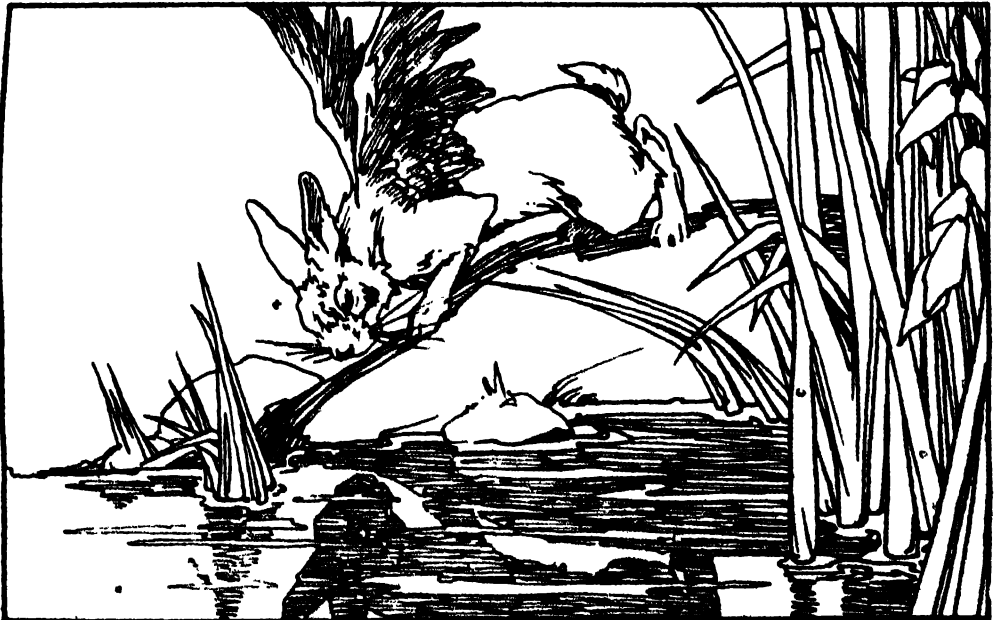


Fig. 12.—LITTLE WHITE RABBIT LOOKING AT HIS RED WINGS ("THE LITTLE RABBIT THAT WANTED RED WINGS").

Wishing Pond. He saw his two long pink ears. He saw his two bright eyes. He saw his four little feet. e

Then he turned around very slowly three times. He looked in the water again. And what do you think. He saw his long, pink ears, his bright eyes, and his little feet, and then he saw *two pretty red wings* (see Fig. 12)!

Little White Rabbit started home to his mammy. When he got there it was dark and his mammy no longer knew him. She had never seen a rabbit with red wings. She shut the door in his face and he could not get into his own little bed.

So Little White Rabbit went to Mr. Hedgehog and knocked at his door.

"Please, kind Mr. Hedgehog, may I sleep in your house all night?"

"No," said Mr. Hedgehog, and he shut the door with a bang. He did not know Little White Rabbit, for he had never seen a rabbit with red wings.

Little White Rabbit then went to Mr. Squirrel's house and knocked at his door.

"Please, kind Mr. Squirrel, may I sleep in your house all night?"

"No," said Mr. Squirrel, and he shut the door with a bang. He did not know Little White Rabbit. He had never seen a rabbit with red wings.

Then off started Little White Rabbit to Mr. Puddle Duck's house.

"Please, kind Mr. Puddle Duck, may I sleep in your house all night?"

"No!" said Mr. Puddle Duck, and he shut the door with a bang. He did not know Little White Rabbit. He had never seen a rabbit with red wings.

Then off went Little White Rabbit to Mr. Wise Owl's home.

"Please, kind Mr. Wise Owl, may I sleep in your house all night?"

"Yes," said Mr. Wise Owl, "come in. You may sleep on the floor of the barn." He knew it was Little White Rabbit returned from the Wishing Pond.

So Little White Rabbit went in, but he could not sleep well on the hard floor of the barn. He wanted his own soft little bed, and he wanted his mammy.

When morning came, Little White Rabbit began to try his little red wings. But he

could not fly very well and he soon fell into a prickly bush.

"Mammy! mammy!" he cried. "Do come and help me!"

His mammy could not hear him but Mr. Wise Owl did.

"Little White Rabbit," he said, "don't you like your little red wings?"

"No, I don't," said Little White Rabbit.

"Then go down to the Wishing Pond and wish them off again."

Away hopped the Little White Rabbit to the Wishing Pond again. He looked at himself in the water. He made a new wish. Then he turned around slowly three times. When he looked at himself again, his little red wings were gone! How glad he was!

Then he went home to his mammy. And she knew him! She knew him!

She was very glad to see her little son again and he was very glad to see his mother.

Never, never again did Little White Rabbit wish to be like someone else.

(Folk Tale.)

WHY LADYBIRDS HAVE SPOTS ON THEIR WINGS

(A useful little story in connection with
nature study.)

Long ago in a beautiful rose garden, there lived a pretty lady-bird with her six little children. The nights were getting long and the days were growing cold. So lady-bird hid her six little children under a rose leaf and told them to be good and not move. Then she flew away to find a winter home.

Just as she reached the woods, lady-bird met a butterfly.

The butterfly called to lady-bird, "I hope your babies are safe. When I flew over the garden just now, the gardener was getting ready to burn the dry leaves."

Lady-bird called back, "Oh, the gardener is so slow! I shall be over the hill and back again before he has raked up the leaves in the garden."

When lady-bird reached the top of the hill, a bumble-bee came buzzing up and cried,

"Lady-bird, lady-bird, fly away home, Your house is on fire and your children will burn."

Oh, how fast lady-bird flew ! There was a big fire very near the leaves where her babies were. The smoke was curling all around them.

"Fly, babies, fly!" cried lady-bird.
"Fly quickly to the old willow tree!"

The little lady-birds heard their mother's voice. They were brave. They shut their little eyes and flew through the black smoke to the old willow tree.

But the hot fire burned little black spots on their wings and on their mother's wings. And from that day to this you will find black spots on the wings of a lady-bird.

TOPKNOT

Once upon a time a hen had some pretty feathers on her head. She thought so much of these feathers that she was called Topknot.

Every day she walked about singing:

"See, see, see how pretty I look !
See, see, see how pretty I look !
See, see, see my topknot !
See, see, see my topknot !

One day she hopped up on the fence and cried:

"Cluck, cluck, cluck !
I'm going away, away !"

The cock heard her and crowed:

"Cock-a-doo-dle-doo !
What are you going to do ?"

"I am going to show my topknot. I am going to town," she said.

The hens all heard her and cried:

"Go, go, go not there !
Go, go, go not there !"

But Topknot cried:

"Cluck, cluck, cluck, over the fence I go !
Cluck, cluck, cluck, over the fence I go !"
and over she went.

She wished to let everyone see her pretty topknot. She had not gone very far when a hawk flew over her head.

He saw Topknot walking all alone. He flew down and caught her.

The cock saw the hawk and cried:

"Cock-a-doo-dle-doo !
I'll come and help you !"

And all the hens who were watching behind the fence cried:

"Come and help !
Come and help !"

A boy heard the noise and ran to the help of Topknot.

Then the hawk let her fall. As he did so he pulled out some of her pretty feathers.

Topknot ran home as fast as she could. Her pretty topknot was gone and she began to cry:

"See, see, see how I look !
See, see, see how I look !

The cock walked about crowing:

"Cock-a-doo-dle-doo !
What did I tell you ?
What did I tell you ?"

(Old Tale.)

THE LITTLE BLACK ANT

Once upon a time a little black ant washed her little black face and put on a pretty black dress. She went and sat near the window of her neat little house.

A bull passed by and looked at her.

"Good morning, pretty one," said the bull. "Will you marry me?"

"Let me hear how you can sing," said she.

The bull roared so loudly that the little black ant covered her ears with her hands.

"What horrid singing!" she cried. "Go away, big bull."

A dog passed by and looked at her.

"Good morning, pretty one," barked the dog. "Will you marry me?"

"Let me hear how you can sing," said she.

"Bow-wow-wow," barked the dog and he barked so loudly that the little black ant covered her ears with her hands.

"Go away, fierce dog!" she cried. "I do not like your singing."

A cat passed by and looked at her.

"Good morning, pretty one," he mewed. "Tell me, will you marry me?"

"Let me hear how you can sing," said she.

"Me-ow, me-ow, me-ow," mewed the cat, and he mewed so long that the little black ant covered her ears with her hands.



Fig. 13.—JOHN AND THE ANIMALS SINGING ("FIDDLE-DIDDLE-DEE").

"I do not like your song!" she cried.
"Go away, cat."

A pig passed by and looked at her.

"Good morning, pretty one," he grunted.
"Tell me, will you marry me?"

"Let me hear how you can sing," said she.

"Humph, humph, humph," grunted the pig, and he grunted so quickly that the little black ant covered her ears with her hands.

"I do not call that singing!" she cried.
"Fat pig, go on your way."

A rat passed by and looked at her.

"Good morning, pretty one," he squeaked.
"Tell me, will you marry me?"

"Let me hear how you can sing," said she.

"Squeak, squeak," squeaked the rat and he squeaked so softly that the little black ant did not have to cover up her ears.

"Mr. Rat, I will marry you," she said.

The next day they were married and lived happily ever after in a snug little house.

(Spanish Nursery Tale.)

(Children like acting this story and imitating the sounds of the animals.)

FIDDLE-DIDDLE-DEE

(Little ones love this old story because they can join in the chorus of animals at the end.)

Little John ran into the garden. He had a slice of bread and butter in one hand and his spelling book in the other. He was going to study his lessons for to-morrow. He sat down under a big oak tree and opened his book.

"But first," he thought, "I will eat my bread and butter." So he let his book fall and ate his bread and butter. Then he began to sing a little song that his mother sometimes sang to the baby:

"I bought a bird, and my bird pleased me;
I tied my bird behind a tree;

Bird said——"

"Fiddle-diddle-dee!" sang someone or something behind the oak. John started

and looked a little frightened, for that was just what he was going to sing. He jumped up and ran round the tree. And there behind the tree was a little brown bird, and it had a little golden thread around its neck, and the thread was tied to a root of the big oak tree.

"Hallo," said John, "was that you?"

"Yes, of course it was! Who else could it be?" asked the brown bird.

"Oh yes," said John, very much astonished, "but I thought you only did it in the song!"

"Well," said the bird, "were you not singing the song? And am I not in the song? What else could I do?"

"Nothing else, I suppose," said John.

"Well, go on with your song," said the bird, "and don't bother me."

John felt very surprised, but he thought he must do as he was told. So he sat down again and began to sing:

"I bought a hen, and my hen pleased me;
I tied my hen behind a tree;
Hen said ——"

"Cluck, cluck, cluck! Cluck, cluck, cluck!" said another voice so loudly that John jumped. He looked around. There was a little hen. Around her neck was a little golden cord that fastened her to the brown bird's leg.

"I suppose that was you?" said John.

"Yes, indeed," said the hen. "I know when my turn comes in a song. But go on and don't bother me."

John did not know what to think of it all. He went back to his seat and sang again:

"I had a cock, and my cock pleased me;
I tied my cock behind a tree ——"

But here he stopped, for out of the little wood came a little man dressed in green, leading by a yellow string a fine cock! When he came to the little hen he tied the yellow string to her leg and went back into the wood.

John looked and looked. Very soon the cock called to him, "Why don't you go on with the song? Do you think I can wait all day for my turn to come? John began to sing again:

"Cock said ——"

"Cock-a-doodle do, Cock-a-doodle do!" instantly crowed the cock.

John jumped up, but in a minute he sat down again.

"I'm not afraid," he said to himself, "I will see what the end of this song will be."

John began to sing again:

"I bought a duck and my duck pleased me;
I tied my duck behind a tree;
Duck said ——"

"Quack! quack! quack!" came from under the oak. But John went on:

"I bought a dog, and my dog pleased me;
I tied my dog behind a tree;
Dog said ——"

"Bow-wow! bow-wow!" said a little curly dog as John looked around the tree. There stood a little short-legged duck tied to the cock's leg, and to the duck's leg was tied the wisest-looking little curly dog. They all looked at John in a friendly way. He was not a bit afraid now. He sat down near them and went on with his song:

"I had a horse, and my horse pleased me;
I tied my horse behind a tree ——"

John stopped and looked down the path. Then he clapped his hands in delight; for there came the little old man leading by a golden bridle a snow-white pony no bigger than John's big dog. The old man tied his bridle to the dog's leg and hurried away.

"Well, well! It's a boy!" said the pony. "I thought so! Boys are always bothering people."

"Who are you, and where did you all come from?" asked delighted John.

"Why," said the pony, "we live with the queen of the fairies. But when our voices are wanted in the song, we have to come."

"I'm sure I'm very sorry," said John. "But why haven't I seen you all before?"

"Because," said the pony, "you have never sung the song under the oak tree. But now that we are all here, don't you think you'd better sing the song right end first and be done with it?"

"Oh, certainly!" cried John, "certainly," and he began to sing.

I wish you could but have heard that song! As John sang, each bird or animal

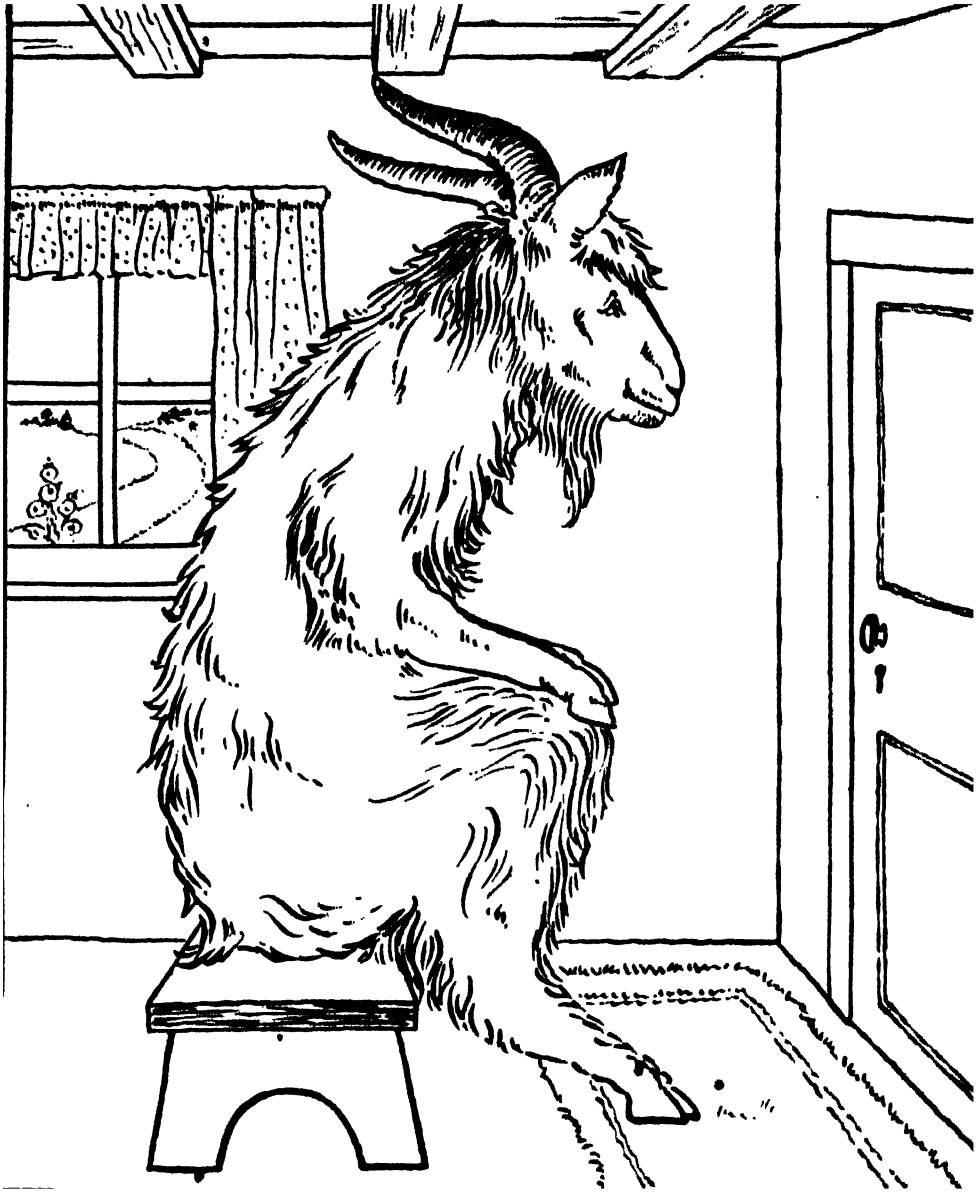


FIG. 14.—HUGE BILLY GOAT IN LITTLE WHITE RABBIT'S HOUSE ("LITTLE WHITE RABBIT").

took up its part and sang it in his own way,
until they all joined in, in the end, like this:

"I had a horse, and my horse pleased me;
I tied my horse behind a tree,
Horse said 'Neigh! neigh!'
Dog said, 'Bow-wow!'

Duck said, 'Quack! quack!'

Cock said, 'Cock-a-doodle-do!'

Hen said, 'Cluck! cluck!'

Bird said, 'Fiddle-diddle-dee!'"

John was delighted. He thought he
would sing it all over again. But just

then he thought he heard his mother calling.

"Wait a minute!" he said to his companions. "Wait a minute! I'm coming back!"

"It's just like a fairy tale," he said to himself as he ran towards the house. "I wonder what mother will think!"

But his mother said she had not called him, and so John ran back to the oak tree as fast as his legs could carry him.

But they were all gone. His book lay open on the ground, a crumb or two of bread was scattered about, but there was no white pony, nor any of the other singers.

"Well," said John, as he picked up his book, "I won't sing it again, for I bothered them so. But I wish they had stayed a little longer."

(Children can model all the animals and tie them together as in Fig. 13.)

THE TREE, THE NEST, AND THE EGGS

(The children soon learn to help in telling this old story.)

There was a tree stood in the ground,
The prettiest tree you ever did see,
With the green grass growing all around.

Now on this tree there was a branch,
The prettiest branch you ever did see,
The branch on the tree and the tree in the ground,
And the green grass growing all around.

Now on this branch there was a nest,
The prettiest nest you ever did see,
The nest on the branch, and the branch on the tree,
And the tree in the ground,
And the green grass growing all around.

Now in this nest there were some eggs,
The prettiest eggs you ever did see,
The eggs in the nest, and the nest on the branch,
The branch on the tree, and the tree in the ground,
And the green grass growing all around.

LITTLE WHITE RABBIT

(A Portuguese nursery tale. A homely story for the younger children. They soon learn to repeat parts of it.)

Little White Rabbit lived all alone near a cabbage garden. One sunny morning she woke up and said, as she dressed:

"I must go to the garden
To look for a cabbage
To make me some soup."

So she put on her bonnet, took up her basket and started off. She found a big cabbage and hurried home. When she got to her door Little White Rabbit could not open it. Someone had locked it on the inside!

She knocked and thumped and knocked!
A big voice inside called out, "Who is there?"

The Little White Rabbit said:

"I'm Little White Rabbit
Come home from the garden
Where I found a big cabbage
To make me some soup."

Then the big voice inside called out:

"I am huge Billy Goat,
With a spring and a bound
I can cut you in three
And eat you, you'll see."

Poor Little White Rabbit ran away. On the road she met a big ox. She said to him, "Big ox, please help me:

"I'm Little White Rabbit.
I went to the garden
To look for a cabbage
To make me some soup.
When I got home
I found huge Billy Goat.
With a spring and a bound
He will cut me in three
And eat me, you see."

The big ox said, "I cannot help you!
I am afraid of huge Billy Goat."
So the Little White Rabbit went on and

met a big dog. She said to him, "Big dog, please help me :

" I'm Little White Rabbit.
I went to the garden
To look for a cabbage
To make me some soup.
When I came home
I found huge Billy Goat.
With a spring and a bound
He will cut me in three
And eat me, you see."

The big dog said : " Oh, I cannot help you. I am afraid of huge Billy Goat."

Little White Rabbit went on and on. Soon she met a fine cock. She said to him, " Help me, fine cock :

" I'm Little White Rabbit.
I went to the garden
To look for a cabbage
To make me some soup.
When I came home
I found huge Billy Goat.
With a spring and a bound
He will cut me in three
And eat me, you see."

The fine cock said, " Oh, I cannot help you, I am afraid of huge Billy Goat ! "

The poor Little White Rabbit said, " No one will help me to drive big Billy Goat out of my house. What shall I do ? Where can I go ? "

On and on went Little White Rabbit weeping. Soon she met a busy little ant.

" Why do you weep, White Rabbit ? " said the little ant.

Little White Rabbit said :

" I went to the garden
To look for a cabbage

To make me some soup.
When I came home
I found huge Billy Goat.
With a spring and a bound
He will cut me in three
And eat me, you see."

The busy little ant said, " I will go and help you, Little White Rabbit."

So they went back together to Little White Rabbit's house and knocked at the door. The big voice inside called out :

" I am huge Billy Goat.
With a spring and a bound
I can cut you in three
And eat you, you'll see."

Then the busy little ant called out :

" I am the great big ant.
With a creep and a spring
I can quickly come in
And sting you, you'll see."

Then the little ant crept in through the keyhole. She sprang on the huge Billy Goat and stung him.

" Oh ! oh ! oh ! " cried the huge Billy Goat. And he jumped out of the window and ran away as fast as he could.

Then the Little White Rabbit cut up the big cabbage and made soup.

Now the white rabbit and the busy little ant live in the same house together.

(Children will like to see huge Billy Goat drawn on the board or cut out of brown paper and mounted. Fig. 14 shows a picture that can be copied or shown to the children. They will like to draw Little White Rabbit's cottage.)

CHAPTER VI

MORE STORIES TO READ OR TELL

Stories for Children of Six and Seven : Going to the Fair ; The Goats in the Rye Field ; How Jack Got a New Shirt ; Buchettino ; The Sheep and the Pig Who Set up House ; The Sparrow and the Crows ; The Strongest ; The Foolish Timid Rabbit ; Mr. Miacca.

SOME of these stories may do for the children of five. The classification cannot be exact.

GOING TO THE FAIR

(A FRENCH FOLK TALE)

I. HOW THE FLIES WENT TO THE FAIR

Once a cock walking along the high road found a bag of pennies.

"Cock-a-doodle-do!" he cried. "What shall I do with these pennies? I will spend them at the Fair."

He walked and he walked and he walked. Soon he met some flies.

"Good morning, Mr. Cock," said the flies, one and all. "Where are you going?"

"Good morning, flies, one and all. I am going to the Fair to spend my pennies," said the cock.

"Oh, let us come with you, Mr. Cock," said the flies, one and all.

"Yes, certainly, flies, one and all. But can you keep up with me?"

"Oh yes, we can keep up with you," said the flies.

But before they had gone more than a mile the flies grew tired. "We are tired, Mr. Cock," they said.

"Then jump down my throat, flies, one and all, and I will carry you," said the cock.

So the flies jumped down his throat.

The cock walked and he walked and he walked.

II. HOW THE BEES WENT TO THE FAIR

Soon he met some bees.

"Good-morning, Mr. Cock. "Where are you going?" said the bees.

"Good morning, bees," said the cock.

"I am going to the Fair to spend my pennies."

"Oh, let us go with you, Mr. Cock," said the bees.

"Come along, bees," said the cock. "But can you keep up with me?"

"Oh, yes, we can keep up with you," said the bees. But before they had gone two miles, the bees grew tired.

"We are tired, Mr. Cock," they said.

"Then jump down my throat, bees. I will carry you," said the cock.

So the bees jumped down his throat.

The cock walked and he walked and he walked.

III. HOW THE DONKEYS WENT TO THE FAIR

Before he had gone three miles, he met some donkeys.

"Good day, Mr. Cock," they said, one and all. "Where are you going?"

"Good-day, donkeys, one and all," said the cock. "I'm going to the Fair to spend my pennies."

"May we come with you, Mr. Cock?" said the donkeys, one and all.

"Yes, certainly, donkeys, come along, one and all," said the cock. "But can you keep up with me?"

"Oh, yes, we can keep up with you, Mr. Cock," said the donkeys, one and all.

But before they had gone four miles the donkeys grew tired. "We are tired, Mr. Cock," they said, one and all.

"Jump down my throat, donkeys, one and all. I will carry you," said the cock.

So the donkeys, one and all, jumped down his throat. He walked and he walked and he walked.

IV. HOW THE COWS WENT TO THE FAIR

Before he had gone five miles, he met some cows.

"Good evening, Mr. Cock," they said all together, for it was evening now. "Where are you going?"

"Good evening, cows, all together. I'm going to the Fair to spend my pennies," said the cock.

"Take us with you, Mr. Cock," they said, all together.

"Come along, cows, all together. But can you keep up with me?" said the cock.

"Oh, yes, we can keep up with you," said the cows, all together.

Before they had gone six miles, the cows grew tired.

"We are tired, Mr. Cock," they said, all together.

"Then jump down my throat, cows, all together. I will carry you," said the cock.

So the cows, all together, jumped down his throat. He walked and he walked and he walked.

V. THE CASTLE

Before he had gone seven miles, he came to a castle and walked in. He bowed to the right. He bowed to the left.

"Good evening, master. Good evening, lady. I am hungry and thirsty. I am tired carrying all I have in my throat. Will you please give me supper and a bed?"

"No!" said the master.

"No!" said the mistress.

"No!" said the servants, ten or twenty, all together.

"I will pay for my supper with my bag of pennies," pleaded the cock.

"You stole the pennies!" cried the master.

"You stole the pennies!" cried the mistress.

"Thief," cried the servants, thirty or forty, all together.

"I found the bag of pennies on the high road," said the cock.

But the servants rushed at him, fifty or sixty, all together.

Then the cock dropped the bag of pennies from his bill and opened his mouth.

Out came the flies with a whir-rr-rr!

Out came the bees with a buzz-zz-zz!

Out came the donkeys with a hee-haw! hee-haw! hee-haw!

Out came the cows with a moo! moo! moo!

The master ran. The mistress ran. The servants ran, seventy or eighty, all together.

"Help! help! help!" they cried, ninety or a hundred, all together.

The cock and his friends, one and all, went into the castle. They were hungry and thirsty, one and all. They had a good supper and went to bed. In the morning they walked on to the Fair and spent the pennies.

(This is a similar, but perhaps easier story than "Drakesbill." It will be enjoyed by children of six or seven. They love the chorus of sound at the end. A version of Drakesbill under the title of Teenchy Duck will be found in "The Book of Stories for the Story-teller," by Fanny E. Coe, Har-rap. Some children like to continue the above story by planning how the animals spent their pennies at the fair. They will like to try to draw the castle or model it of clay or boxes, Fig. 15.)

THE GOATS IN THE RYE FIELD

(A tale from the Norwegian. Suitable for children of six and seven.)

Once upon a time a boy had three goats. He drove them up to the green hills in the morning and drove them home in the evening.

One evening, as he was driving them home, they jumped over a fence into a field of rye. He tried to get them out but they would not come.

At last he sat down and cried. A hare came along and asked, "Why do you cry?"

"I cry because I can't get the goats out of the rye field," said the boy.

"I will," said the hare. So the hare ran after the goats but they would not come out

of the field. Then the hare sat down and cried.

As they sat there crying a fox came along.

"Why do you cry, hare?" asked the fox.

The hare said, "I cry because the boy cries, the boy cries because he can't get the goats out of the rye field."

"I will get them out," said the fox. So the fox ran after the goats, but he could not get them out of the rye field. Then the fox sat down and cried.

Soon a wolf came along. "Why do you cry, fox?" asked the wolf.

The fox said, "I cry because the hare cries. The hare cries because the boy cries. The boy cries because he can't get the goats out of the rye field."

"I will do it," said the wolf. So the wolf ran after the goats, but he could not get them out of the field. So the wolf also sat down and cried.

After a while a bee flew over the hill. She saw them all sitting there crying, so she said to the wolf, "Why do you cry?"

The wolf said, "I cry because the fox cries. The fox cries because the hare cries. The hare cries because the boy cries. The boy cries because he can't get the goats out of the rye field."

"I will do it," said the bee.

"What!" said the boy. "A little thing like you!"

"What!" said the hare. "A little thing like you!"

"What!" said the fox. "A little thing like you!"

"What!" said the wolf. "A little thing like you!"

And they all stopped crying and began to laugh.

Then the bee flew into the field. She lighted on the first goat and said, "Buz-z-z!" and he ran out of the field. She lighted on the second goat and said, "Buz-z-z!" and he ran out of the field. She lighted on the third goat and said, "Buz-z-z!" and he ran out of the field. Then the little boy drove them happily home.

(The children might try to make a rye-field on the sand-table, using stiff pieces of grass or fringed paper to look

like tall grass. The goats can be modelled of clay, Fig. 16.)

HOW JACK GOT A NEW SHIRT

(From the Norwegian.)

Once upon a time there were seven little children. Their mother was so poor that she had to go from home and work all day to get food for her seven children. At night she had to spin wool and weave it into cloth to make shirts for them.

Each child had but one shirt. When the biggest had outgrown his, it was given to the next in size. So it happened that the shirt that came to Jack, the youngest, was always thin and nearly worn out.

But Jack was a happy little boy. He loved to play with all the animals around his mother's cottage. Whenever he saw a lamb, he ran to get green grass for it to eat. Whenever he found a young bird that had fallen from its nest he put it back.

One day his shirt had become so old and thin that it fell from his body. As his mother was very busy she could not make him another, but the weather was fine and warm so Jack said he would go without a shirt for a time.

One day, as Jack was hunting for strawberries in the woods, he met a lamb.

"Where is your shirt?" asked the lamb.

"I have none," answered Jack sadly; "and my mother cannot make me one for a long time. Even then the new one will be for my eldest brother, and I shall have an old one. I wish I could only once have a new shirt!"

"I will give you my wool and you can have a new shirt made," said the kind lamb, and he pulled off his wool and gave it to Jack.

As Jack was going along with the wool, he saw a thorn bush by the side of the road.

"What are you carrying, little boy?" asked the thorn bush.

"It is some wool to make me a new shirt," said Jack.

"Give it to me; I will comb it for you and make it smooth."

So Jack gave the wool to the thorn bush.

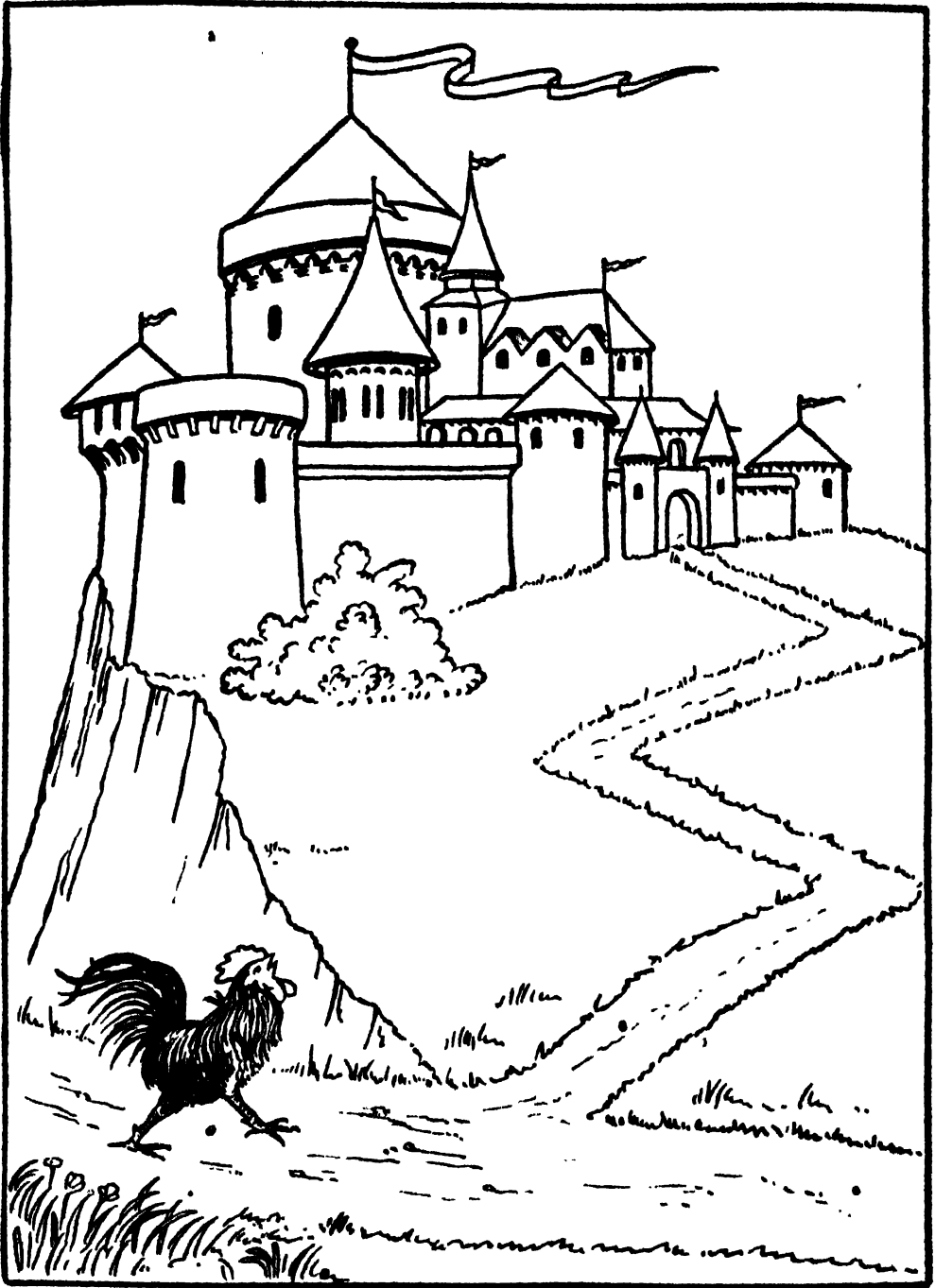


Fig. 18.—THE COCK COMES TO A CASTLE. FROM "GOING TO THE FAIR."

This castle can be drawn on the board for the children.

The bush ran its thorns back and forth through the wool. It was soon beautifully combed and smoothed. Then the bush gave the wool back to Jack.

As Jack was carrying the combed wool along, he saw a spider sitting in the middle of a web.

"Give me your wool, little boy," she said. "I will spin it into thread and weave it into cloth for you."

Then the spider spun the wool into thread and wove from it as fine a piece of cloth as anyone had ever seen.

Jack took the cloth gratefully and hurried towards home.

As he came to a brook he saw a crab.

"What have you there, little boy?" asked the crab.

"It is cloth to make me a new shirt."

"Let me cut it out for you," said the crab; and with his great shears he cut out a shirt. "Now if you can get someone to do the sewing, you will have a fine new shirt," said the crab, as he gave the cloth back to Jack.

Jack wondered rather sadly when his mother would find time to sew for him.

Just then he saw a little bird sitting on a bush by the side of the road.

"I see that you have some cloth for a new shirt," said the bird. "Give it to me, I will sew it for you."

The bird took a long thread in its sharp bill and flew back and forth with it. He worked with his bill as he always did in making his nest. When he had finished sewing the shirt, he said, "Now your shirt is made. It is as nice a shirt as anyone could wish."

Jack put the shirt on and ran home to show his mother. He had never been so happy before.

(This is a very valuable story for children of six and seven. It gives them some idea of how cloth is made. They can, in their handwork lessons, or when acting the story, experiment in making cloth, pretending to spin and really trying to weave and so on. It is a story that the children will enjoy illustrating in different ways.)

BUCHETTINO

(An Italian nursery tale. The *ch* is pronounced as "k.")

I

Once upon a time there was a little boy whose name was Buchettino. One morning his mother called him and said: "Buchettino, will you do something for me? Will you sweep the stairs?"

Buchettino, who was very obedient, went at once to sweep the stairs. All at once he heard a tinkle, tinkle. He looked and looked and found a bright new penny. Then he said to himself: "What shall I do with this penny? Shall I buy some dates? No, for then I should have to throw away the stones. Shall I buy some apples? No, for then I should have to throw away the core. Shall I buy some nuts? No, for then I should have to throw away the shells! What shall I buy, then? I will buy—I will buy—I will buy a pennyworth of figs." No sooner said than done; he bought a pennyworth of figs, and went to eat them in a big tree.

While he was eating, an ogre passed by and, seeing Buchettino eating figs in the tree, he said:

"Buchettino,
My dear Buchettino,
Give me a little fig
With your dear little hand,
If not *I will eat you!*"

Buchettino threw him one down, but it fell in the mud. Then the ogre repeated:

"Buchettino,
My dear Buchettino,
Give me a little fig
With your dear little hand,
If not *I will eat you!*"

Then Buchettino threw him another, which also fell in the mud. The ogre said again:

"Buchettino,
My dear Buchettino,
Give me a little fig
With your dear little hand,
If not *I will eat you!*"

Poor little Buchettino did not know that the ogre was trying to catch him, so what

does he do? He leans down and foolishly gives him a fig with his little hand. The ogre at once seized him by the arm, put him into his bag, and started for home singing:

"Wife, my wife,
Put the kettle on the fire,
For I have caught Buchettino!
Wife, my wife,
Put the kettle on the fire,
For I have caught Buchettino!"

When the ogre was very near his home, he put the bag on the ground, and went off to attend to something else. Little Buchettino, with his little knife, cut a hole in the bag and crept out. Then he filled the bag with large stones and ran home as fast as he could, saying:

"Run, legs, run, ere the ogre comes!"

When the ogre returned he picked up the bag, and as soon as he reached the door of his house he called out: "Tell me, my wife, have you put the kettle on the fire?"

She answered at once:

"Yes."

"Then we will cook Buchettino," said the ogre. "Come here and help me. Take hold of one end of this bag." And both taking hold of the bag they carried it to the fire. They emptied it into the kettle! Splash! The bag was full of stones!

How angry that ogre was! He roared out, "Buchettino put stones into my bag! He ran away but I will catch him yet."

II

The next day the ogre went to the place where he had caught little Buchettino. But little Buchettino was not there. He walked up and down the roads. He looked into all the hiding places.

At last he raised his eyes and looked over the tops of every house he saw. And there upon the roof of a house he saw Buchettino standing and laughing at him. The ogre was terribly angry, but he said in a very sweet voice, "Oh, there you are, Buchettino! Just tell me how you climbed up on that roof!"

"Do you really want to know?" said Buchettino. "Then listen. I put dishes upon dishes, glasses upon glasses, pans upon pans, kettles upon kettles, until they were almost as high as this roof. Then I climbed and climbed upon them and here I am."

"Ah!" said the ogre. "Wait a bit." And with that he quickly piled dishes upon dishes, glasses upon glasses, pans upon pans, kettles upon kettles, and made a great mountain.

Then he began to climb and climb and climb. But when he had almost reached



FIG. 16.—"THE GOATS IN THE RYE FIELD."

the top—crash—crack—bang—br-r-r—everything fell down, dishes upon dishes, glasses upon glasses, pans upon pans, kettles upon kettles, and all on top of that wicked ogre.

Then Buchettino, well pleased, ran home to his mother, who gave him a piece of candy.

THE SHEEP AND THE PIG WHO SET UP HOUSE

(Adapted from the Norse. A fine version will be found in "Tales from the Fjeld," by G. W. Dasent.)

Once upon a time a sheep and a pig went off to the wood together to build a house. "A home is a home be it ever so homely," said the sheep.

Now when they had gone on a bit they met a goose.

"Where are you going?" asked the goose.

"We are going to build a house for ourselves in the wood," said the sheep and the pig.

"May I come and live with you?" asked the goose.

"What can you do to help?" said the pig. "For with cackle and gabble no house is built."

"I can pluck moss and stuff it in the cracks with my broad bill, and your house will be snug and tight," said the goose.

"Good," said piggy, for above all he wished to be warm and comfortable. "You may come with us."

So when they had gone on a bit farther—the goose had hard work to walk so fast—they met a hare, who came frisking out of the wood.

"Where are you going?" asked the hare of the three.

"We are going to build a house for ourselves in the wood," said the sheep.

"May I come and live with you?" said the hare.

"What can you do to help?" asked the pig.

"I can gnaw pegs with my sharp teeth; I can drive them into the wall with my paws. I will be a good carpenter," said the hare.

"Good!" said the sheep, the pig, and the goose. "You may come with us."

When they had gone a bit farther they met a cock.

"Where are you going?" asked the cock of the four.

"We are going to build us a house," said the sheep. "May I come and live with you?" said the cock. "I can crow loudest at home."

"Flapping and crowing won't build a house," said the pig. "What can you do to help?"

"The house that has a cock never wants a clock," said the cock, "I am up early and I wake everyone."

"Yes, 'Early to rise, makes one wealthy and wise,' so let him come with us!" said the pig, for you must know that piggy was always the soundest sleeper.

So they all set off to the wood and built the house. The pig felled the trees, and the sheep dragged them home; the hare was carpenter and gnawed pegs and pushed them into the walls and roof; the goose plucked moss and stuffed it into the cracks between the logs; the cock crew so that they did not oversleep themselves in the morning; and when the house was ready and the roof lined with birch bark and thatched with turf, there they lived by themselves, and were merry and well.

"'Tis good to travel east and west," said the sheep, "but after all a home is best."

(The children will like to make the house shown in Fig. 17.)

THE SPARROW AND THE CROWS

(This story is a Hindoo tale adapted from *The Selfish Sparrow and the Houseless Crows*, in "Old Deccan Days," by M. Frère. John Murray, 7s. 6d.)

A sparrow once built a nice little house in a tree. She lined it well with wool. She made it strong with sticks. It was a cool house in summer. It kept out the rain and the snow in the winter.

A crow who lived near by also built a house, but it was not such a good house. It was only made of a few sticks laid one above another, and it was right on the top of a prickly pear hedge.

One day when it rained hard the crow's house was washed away, but the sparrow's house was not washed away at all.

The crow and her mate went to the sparrow, and said :

" Sparrow, sparrow,
have pity on us,
and give us shelter,
for the wind blows,
and the rain beats
and the prickly pear thorns
stick into our eyes."

But the sparrow answered, " I'm cooking the dinner, I cannot let you in now. Come at another time."

In a little while the crows returned and said :

" Sparrow, sparrow,
have pity on us,
and give us shelter,
for the wind blows,
and the rain beats,
and the prickly pear thorns
stick into our eyes."

The sparrow answered, " I'm eating my dinner, I cannot let you in now. Come at another time."

The crows flew away, but in a little while returned and cried once more :

" Sparrow, sparrow,
have pity on us,
and give us shelter,
for the wind blows,
and the rain beats,
and the prickly pear thorns
stick into our eyes."

The sparrow answered, " I'm washing the dishes, I cannot let you in now ; come at another time."

The crows waited a while and then called out :

" Sparrow, sparrow,
have pity on us,
and give us shelter,
for the wind blows,
and the rain beats,
and the prickly pear thorns
stick into our eyes."

But the sparrow would not let them in, she only replied, " I'm sweeping the floor, I

cannot let you in now. Come at another time."

Next time the crows came and cried :

" Sparrow, sparrow,
have pity on us,
and give us shelter,
for the wind blows,
and the rain beats,
and the prickly pear thorns
stick into our eyes."

She answered, " I'm making the beds. I cannot let you in now. Come again at another time."

And so she kept on sending the poor birds away.

At last when she and her children had had their dinner, and she had cooked and put away the dinner for next day, and had put all the children to bed and gone to bed herself, she cried to the crows, " You may come in now, and take shelter for the night."

The crows came in, but they were very cross at having been kept out so long in the wind and the rain.

When the sparrow and her children were asleep, the crow said to his wife :

" This selfish sparrow
had no pity on us,
she gave us no dinner.
She would not let us in,
until she and all her children
were happily in bed ;
let us punish her."

So the two crows took all the nice dinner the sparrow had cooked for herself and her children to eat next day, and flew away with it.

(This story is useful for the reading lesson. The parts that are repeated can be printed on the board and read by the children.)

THE STRONGEST

(A story adapted from " Little Mr. Thimblefinger," by Joel Chandler Harris.)

It was like this : Once upon a time in the country there happened to be a big frost and the mill pond froze over.

Mr. Rabbit ran along that way and found the ice bridge over the pond, and he skipped over it. I mean he skipped a part of the way. The ice was so slippery that, when he got about half-way, his feet slipped from under him and he fell.

He got up and rubbed himself as well as he could, and then he thought that the ice must be very strong to hit him so hard.

He said to the Ice, "You are very strong."

"I am so," replied the Ice.

"Well, if you are so strong, how can the Sun melt you?"

The Ice did not speak, and so Mr. Rabbit asked the Sun, "Are you very strong?"

"So they tell me," replied the Sun.

"Then how can the Clouds hide you?"

The Sun was somewhat ashamed and had nothing to say.

So Mr. Rabbit looked at the Clouds, "Are you very strong?"

"We have heard so," replied the Clouds.

"How can the Wind blow you?"

The Clouds sailed away, and Mr. Rabbit asked the Wind, "Are you very strong?"

"I think so," said the Wind.

"Then how can the Mountain stand against you?"

The Wind blew itself away, and Mr. Rabbit asked the Mountain, "Are you very strong?"

"So it seems," replied the Mountain.

"How can the Mouse make a hole in you?"

The Mountain was mum; so Mr. Rabbit asked the Mouse, "Are you very strong?"

"I think so," replied the Mouse.

"How can the Cat catch you?"

The Mouse hid in the grass. Mr. Rabbit asked the Cat, "Are you very strong?"

"Yes, indeed," replied the Cat.

"How can the Dog chase you?"

The Cat began to wash her face. Then Mr. Rabbit said to the Dog, "Are you very strong?"

"I am," replied the Dog.

"Then why does the Stick scare you?"

The Dog began to scratch his neck and Mr. Rabbit said to the Stick, "Are you very strong?"

"Everybody says so."

"Then how can the Fire burn you?"

The Stick was dumb, and Mr. Rabbit asked the Fire, "Are you very strong?"

"Anybody will tell you so," replied the Fire.

"How can the Water quench you?"

The Fire hid behind the smoke. Then Mr. Rabbit asked the Water, "Are you very strong?"

"Strong is no name for it," said the Water.

"How can the Ice cover you?"

The Water went running down the river, and after it had gone the Ice said to Mr. Rabbit, "You see you had to come back to me at last."

"Yes," replied Mr. Rabbit, "and now I am going away. You are too much for me." Then Mr. Rabbit hopped off, rubbing his bruises.

JOEL CHANDLER HARRIS.

THE FOOLISH TIMID RABBIT

(A Jataka Tale from India. A fine version of this story under the title of The Folly of Panic, will be found in "A Collection of Eastern Stories and Legends," selected and adapted by Marie L. Shedlock. Routledge, 2s. 6d. Practically all the stories in this book are Buddha Re-Birth Stories. Here the story is retold for little ones.)

I. THE GREAT NOISE

Once upon a time there was a timid little rabbit. He went to sleep under a tree. All at once he woke up with a start. He thought, "What should I do if the earth were to fall in?" Just then a monkey let a coconut drop down at the back of the rabbit. "Goodness me," cried the rabbit, "the earth is falling in!" And he jumped up, and he ran and he ran just as fast as he could. He did not even look back to see what had made the noise.

Presently he met another rabbit who called, "Why are you running so fast?"

And the timid little rabbit said: "I have no time to stop and tell you anything. The earth is falling in, and I am running away."

"The earth is falling in, is it?" said the



FIG. 17.—THE SHEEP AND PIG BUILDING THEIR HOUSE.
The Hare is inside the house driving in pegs ("The Sheep and the Pig who set up House").

second rabbit in great surprise and he, too, began to run as fast as he could. And as he ran he shouted the news to his brother who was near, and he shouted it to another rabbit, and they all shouted the news to every rabbit they met. Soon there were hundreds of rabbits all running just as fast as they could and shouting: "The earth is falling in!" They met a deer. They called out to the deer, "The earth is falling in."

"Dear me!" cried the deer. "So the earth is falling in!" And he, too, began to run along with them.

They met a sheep. The deer called to the sheep, "Come along, come along! The earth is falling in!"

"Dear me!" cried the sheep. "So the earth is falling in!" And the sheep ran along after the rabbits and the deer.

Soon they met an elephant, "Come along!" cried the sheep. "Don't you know the earth is falling in?"

"Dear me! dear me!" cried the elephant. "So the earth is falling in!" Then the elephant ran along with the rabbits and the deer and the sheep.

Soon they were joined by the wild boar, and then the buffalo, and then the camel and then the tiger.

II. THE WISE LION

The wise lion saw the animals running. He heard them cry, "The earth is falling in!" And he wondered, for he said to himself, "There are no signs of the earth falling in, but they must have heard something. I must stop them and find out what they mean."

So he ran up to the animals and roared at them. This stopped them at once, for they feared King Lion.

"Why are you running so fast?" asked the lion.

"Oh, King Lion," they cried, "the earth is falling in!"

"Who saw it falling in?" asked the lion.

"I did not," said the tiger. "The camel told me."

"I did not," said the camel. "The buffalo told me."

"I did not," said the buffalo. "The wild boar told me."

"I did not," said the wild boar. "The elephant told me."

"I did not," said the elephant. "The sheep told me."

"I did not," said the sheep. "The deer told me."

"I did not," said the deer. "This rabbit told me."

And the rabbits said they had not seen the earth falling in, but they had heard about it from *that* little rabbit, and they pointed out the little foolish timid rabbit.

And the lion said: "Little rabbit, is the earth really falling in?"

"Yes," said the little rabbit. "I saw it."

"You saw it?" said the lion. "Where?"

"Underneath a tree."

"Then we will go back to that tree and see what is the matter," said the lion.

"But I am afraid," said the little rabbit.

"I will take you on my back," said the wise lion.

The lion put the rabbit on his back and away they went like the wind. The other animals waited for them. The rabbit told the lion when they were near the tree. The lion saw the place where the rabbit had been asleep. He saw, too, the coconut that the monkey had dropped near by. Then the lion said to the rabbit, "It must have been the noise of the coconut dropping to the ground. You foolish timid little rabbit!"

And the little rabbit said meekly, "Yes, I see the earth is not falling in."

Then they went back and told the other animals all about it. And one by one they went home saying "The earth is *not* falling in. The earth is *not* falling in," until their voices gradually died away in the distance.

But if it had not been for the wise lion those animals might be running still.

MR. MIACCA

(From "English Fairy Tales," by Joseph Jacobs.)

Tommy Grimmes was sometimes a good boy, and sometimes a bad boy; and when he was a bad boy, he was a very bad boy. Now his mother used to say to him: "Tommy, Tommy, be a good boy and

don't go out of the street or else Mr. Miacca will take you." But still when he was a bad boy he would go out of the street; and one day, sure enough, he had scarcely got round the corner, when Mr. Miacca did catch him and popped him into a big bag upside down, and took him off to his house.

When Mr. Miacca got Tommy inside he pulled him out of the bag and set him down and felt his arms and legs. "You're rather tough," said he; "but you're all I've got for supper, and you'll not taste bad, boiled. But I declare, I've forgotten the herbs, and it's bitter you'll taste without herbs. Sally! Here, I say, Sally!" and he called Mrs. Miacca.

So Mrs. Miacca came out of another room and said: "What do you want, my dear?"

"Oh, here's a little boy for supper," said Mr. Miacca, "and I've forgotten the herbs. Mind him, will you, while I go for them."

"All right, my dear," said Mrs. Miacca, and off he goes.

Then Tommy Grimmes said to Mrs. Miacca: "Does Mr. Miacca always have little boys for supper?"

"Mostly, my dear," said Mrs. Miacca, "if little boys are naughty enough, and get in his way."

"And do you never have any pudding? Do you get tired of boys for supper?" asked Tommy.

"Ah, I love pudding," said Mrs. Miacca. "But it isn't often I get a chance of having pudding."

"Why, my mother is making a pudding this very day," said Tommy Grimmes, "and I am sure she'd give you some, if I ask her. Shall I run and get some?"

"Now, that's a thoughtful boy," said

Mrs. Miacca, "only don't be long and be sure to be back for supper."

So off Tommy pelted, and right glad he was to get off so cheap; and for many a long day he was as good as good could be, and never went round the corner of the street. But he couldn't always be good and one day he went round the corner, and, as luck would have it, he had scarcely got round it when Mr. Miacca grabbed him up, popped him in his bag, and took him home.

When he got there, Mr. Miacca dropped him out, and when he saw him he said: "Ah, you're the little boy that served me and my wife that trick, leaving us without any supper. Well, you won't do that again. I will watch over you myself. Here, get under the sofa and I'll sit on it and watch the pot boil for you."

So poor Tommy Grimmes had to creep under the sofa, and Mr. Miacca sat on it and waited for the pot to boil. And they waited and they waited, but still the pot did not boil, till at last Mr. Miacca grew tired of waiting, and he said: "Here, you under the sofa, I'm not going to wait any longer; put out your leg, and I'll stop you giving me the slip."

So Tommy put out a leg, and Mr. Miacca got a chopper and chopped it off, and pops it in the pot.

Suddenly he called out: "Sally, my dear, Sally!" and nobody answered. So he went to the next room to look for Mrs. Miacca, and while he was there Tommy crept out from under the sofa and ran out of the door, for it was a leg of the sofa that he had put out.

So Tommy Grimmes ran home, and he never went round the corner again till he was old enough to go alone.

CHAPTER VII

STORIES FOR SPECIAL OCCASIONS

A Syllabus of Stories for the different Seasons. Christmas Stories: Babouscka; The Stranger Child; How the Fir Tree became the Christmas Tree; The Little Christmas Tree. Easter Stories: Mr. Easter Rabbit; An Easter Dream; How the Children Learnt Spring Was Coming. Stories for different Seasons: The Sunbeams; The Story of a Seed; How the Dandelions Came; The Daisy; The Little Girl Who Would Not Work; The Red Apple; When the Sun Rises; The Seasons.

STORIES that are in harmony with the seasons should be frequently told to the children. The great festivals of Christmas and Easter, the return of Spring, the gathering in of the harvest, all become more full of meaning to the little child through appropriate stories. One must not of course overdo the topical story. A child might well grow weary of all Spring stories, for example. Stories that are good in themselves are worth telling at any season.

The following suggested list of stories for the different seasons may be useful to teachers. A selection can be made from this list for children of from four to seven or eight.

Other stories will be found in the different chapters and in the syllabus of stories at the end of the section.

Winter

The Snow Man, from "A Story Garden for Little Children," by M. Lindsay (Harrap).

The Snow Man, adapted from Hans Andersen.

The Pine Tree, adapted from Hans Andersen.

Babouscka. A Christmas story. Russian. Given in this chapter.

The Stranger Child. A legend of the Christmas tree. Given in this chapter.

How the Fir Tree became the Christmas Tree. Given in this chapter.

The Golden Cobwebs, from "How to Tell Stories to Children," by Sara Cone Bryant (Harrap).

The Christmas Tree that Once Lived and The Resurrection Plant, from "Stories to Tell the Littlest Ones," by Sara Cone Bryant (Harrap).

St. Christopher, from "The Book of Stories for the Story-Teller," by Fanny E. Coe (Harrap).

The Christmas Cake, from "More Mother Stories," by Maud Lindsay (Harrap).

The Little Christmas Tree. Told in this chapter.

The Christmas Story. St. Luke.

An All-the-Year-Round Story—The Fairies' New Year's Gift, from "In the Child's World," by Emilie Poulsson (Philip).

Spring

The Patch of Snowdrops, from "Stories for the Story Hour," by Ada M. Marzials (Harrap).

Why the Morning Glory Climbs and Happy Easter, from "Stories to Tell

the Littlest Ones," by Sara C. Bryant (Harrap).

How the Dandelions Came. Told in this chapter.

The Primroses and Mr. West Wind, from "Everyday Stories to Tell," by Mrs. H. C. Cradock (Harrap).

The Little Half Chick. Spanish folk tale.

The Story of a Seed. Given in this chapter.

The Wind and the Sun, Æsop.

The Sleeping Beauty, Grimm.

The Snowdrop, adapted from Hans Andersen.

Mr. Easter Rabbit, German legend. Given in this chapter.

An Easter Dream. Given in this chapter.

How the Children Learnt Spring was Coming. Folk tale. Given in this chapter.

The Coming of the King, by Laura E. Richards (H. R. Allenson).

Out of the Nest, "More Mother Stories," by Maud Lindsay (Harrap).

Summer

The Daisy, adapted from Hans Andersen. Given in this chapter.

The Little Girl Who Would Not Work. Given in this chapter.

Five Peas in a Pod, adapted from Hans Andersen.

The Little Pink Rose, from "How to Tell Stories to Children," by Sara C. Bryant (Harrap).

A Visit to the Sea, from "Everyday Stories to Tell," Mrs. H. C. Cradock (Harrap).

Little Spider's First Web. Chapter IV.

The Sunbeams. Given in this chapter.

The Picnic, from "Everyday Stories to Tell," Mrs. H. C. Cradock (Harrap).

Autumn

The Babes in the Wood.

The Red Apple. Told in this chapter.

The Lark and her Young Ones, Æsop.

Squirrel Nutkin, Bunny Cottontail, from "Squirrel Nutkin," by Beatrix Potter (Frederick Warne & Co.).

The Thrifty Squirrels, "In the Child's World," by Emilie Poulsson (Philip).

Henny Penny, from Joseph Jacobs's "English Fairy Tales."

The Ant and the Grasshopper, Æsop.

Oeyvind and Marit by Björnstjerne Björnson, from "Stories and Story Telling," Keyes (Harrap).

Blackberrying, from "Everyday Stories to Tell," Mrs. Cradock (Harrap).

The Hazel Nut and Falling Leaves, from "Stories for the Story Hour," by A. Marzials (Harrap).

Most of the old folk tales deal with outdoor life and some can be found to suit every season; indeed, most of them are suitable for any season. Some stories such as I Won't Wait in Chapter IV, and stories about Thumbelina adapted from Hans Andersen, belong to any season, as the incidents take place in Spring, Summer, Autumn, and Winter.

In this chapter many nature stories will be found suitable for different seasons.

I. CHRISTMAS STORIES

BABOUSCKA

It was the night the little Christ Child came to Bethlehem. In a country far

away from Him an old woman called Babouscka sat by her warm fire in a snug little cottage. Outside the wind was blowing the snow about and howling down the chimney, but indoors the wind only seemed to make Babouscka's fire burn more brightly.

"How glad I am to be indoors to-night!" she said as she watched the red flames and sparks fly up the chimney. Suddenly she heard a loud rap-a-tat-tat at her door. She opened it quickly. The light of her candle shone on three old men standing in the snow. Their beards were white and they looked wise and kind. Babouscka could see that they were richly dressed and their arms were full of precious things—boxes of jewels and sweet-smelling oils and perfumes.

"We have travelled far, Babouscka," they said, "and we have far to go. But we stop to tell you of a Baby Prince born this night in Bethlehem. He comes to rule the world and to teach all men to be true and gentle. We are carrying him gifts. Come with us, Babouscka, and bring the little Child a gift."

But Babouscka looked at the snow outside and then at her warm fire and cosy chair. "It is too late for me to go with you to-night," she said, "and it is too cold." So the old men said farewell to her and journeyed on to Bethlehem without her. And Babouscka went inside her warm room and shut the door. But as she sat by the fire she began to think about the Baby Prince, for she loved all babies.

"To-morrow I will go to find Him," she said. "To-morrow when it is light, and I will carry Him some gifts."

When it was morning, Babouscka put on her long cloak; she took her basket and filled it with pretty things that a baby would like—golden balls and toys and silver bells, then, with her staff in her hand, she set out to find the Christ Child.

But she had forgotten to ask the three wise men the road to Bethlehem, and they had travelled so far in the night that she could not overtake them. Up and down the different roads she travelled, through woods and fields and towns, saying to whomsoever she met: "I am going to find the Christ Child. Where does He live? I bring Him some pretty toys." But no one could tell

her the way to go, and they all said: "Farther on, Babouscka, farther on."

So she travelled on for years and years, but she never found the little Christ Child. They say that she is travelling still looking for Him. When Christmas Eve comes, and the children are lying fast asleep in bed, Babouscka travels softly through the snowy fields and towns, wrapped in her long cloak and carrying her basket on her arm. Softly she enters each home where there is a little child, and holds her candle close to each tiny bed. "He is not here," she says, "the little Christ Child is not here." And then before she goes she takes a toy from her basket and lays it on the little bed for His sake. And so she hurries on through the years making little children happy for the sake of the Baby she never saw.

(Russian legend.)

THE STRANGER CHILD

(A legend of the Christmas tree, by Count Franz Pocci, translated and adapted).

There once lived a poor man who earned his bread by cutting wood. His wife and two children, a boy and girl, helped him with his work. The boy's name was Peter and the girl's name was Marie. They were good children and their parents loved them very dearly.

One winter evening, when the little family gathered about the table to eat their small loaf of bread, they heard a knock on the window and a sweet voice called:

"Oh, let me in! I am a little child, and I have nothing to eat, and no place to sleep in. I am so cold and hungry! Please let me in!"

Peter and Marie ran from the table and opened the door, saying: "Come in, poor child, we have only a little ourselves but you shall share it."

The stranger Child came in and going to the fire began to warm his cold hands.

The children gave him half of their bread, saying: "You must be very tired, come and lie down in our bed and we will sleep on the bench before the fire." And the stranger

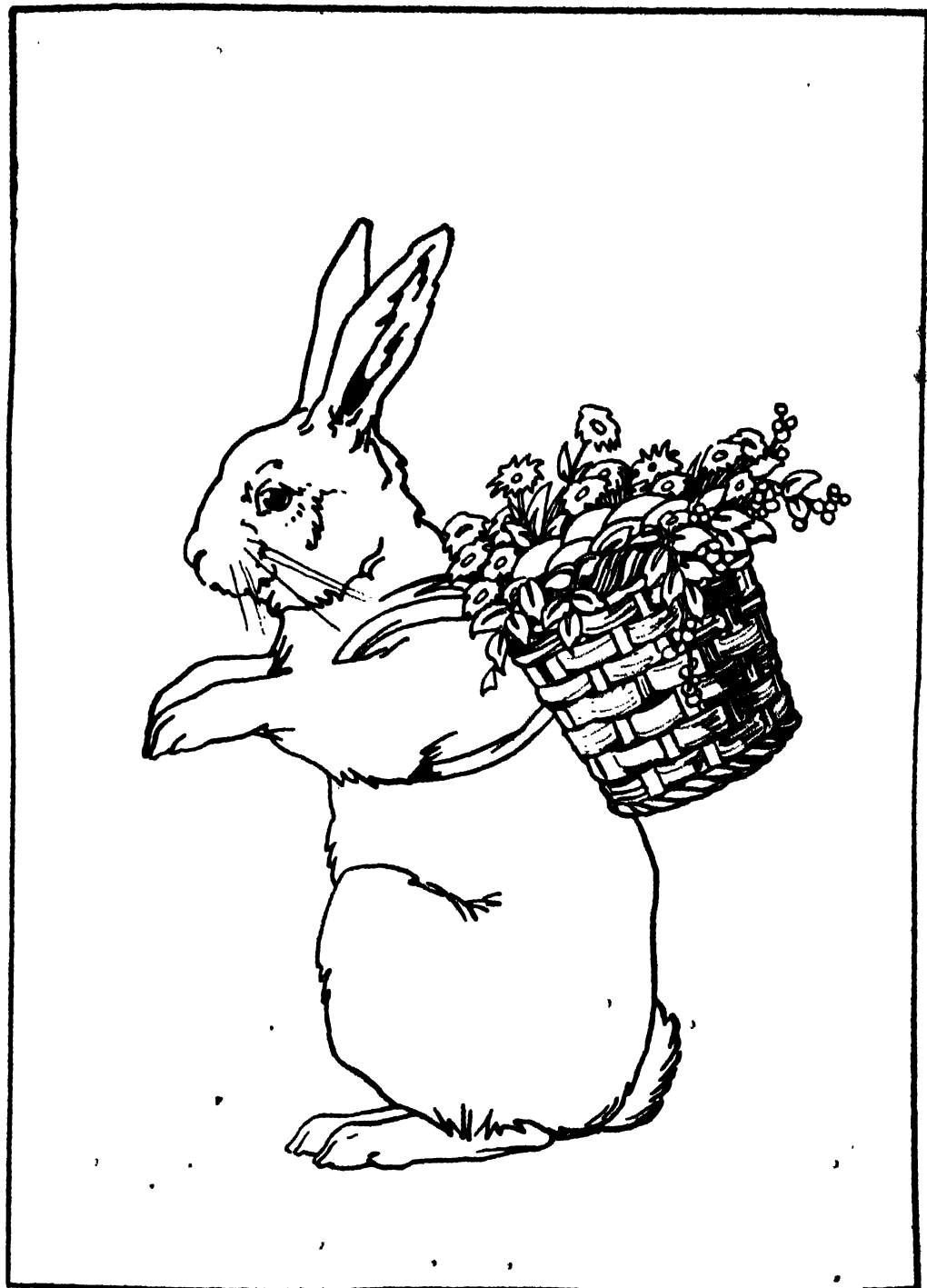


FIG. 18—THE EASTER RABBIT IN THE STORY "HOW THE CHILD LEARNT SPRING WAS COMING."

Child said: "May God bless you for your kindness."

Then the children took the little guest to their room, laid him on their bed and covered him with soft rugs, thinking to themselves: "How lucky we are to have a nice warm room and bed while this Child has nothing but the sky for a roof and the earth for a couch."

When their parents had gone to bed, Peter and Marie lay down in front of the fire, and Marie said: "The stranger Child is happy now, because he is so warm! Good-night!"

Then they fell asleep.

They had not slept many hours when little Marie awoke, and, touching her brother lightly, whispered: "Peter, Peter, wake up! Wake up! Listen to the beautiful music at the window."

Peter rubbed his eyes and listened. He heard the most wonderful singing and the sweet notes of many harps:

"Blessed Child,
Thee we greet
With sound of harp
And singing sweet.

Sleep in peace,
Child so bright.
We have watched Thee
All the night.

Bless the home
That holdeth Thee,
Peace and love
Its guardians be."

The little children listened in joy. Then creeping to the window, they looked out.

They saw a rosy light in the east, and, before the house in the snow stood a number of little children holding golden harps in their hands and dressed in sparkling silver robes.

Full of wonder Peter and Marie gazed and gazed out of the window. Then they heard a sound behind them, and turning they saw the stranger Child standing near. He was dressed in a golden garment, and had a glistening, golden crown upon his soft hair. Sweetly he spoke to the children:

"I am the Christ Child, who wanders

about the world seeking to bring joy to loving children. Because you gave me your bed to-night I will leave with you my blessing."

As the Christ Child spoke He stepped from the door, and breaking off a bough from a fir tree that grew near, planted it in the ground, saying: "This bough shall grow into a tree, and every year it shall bear Christmas fruit for you."

Having said this He vanished from their sight, together with the silver-clad, singing children—the angels.

And as Peter and Marie looked on in wonder the fir bough grew, and grew, and grew, into a stately Christmas tree laden with golden apples, silver nuts, and lovely toys. And after that, every year at Christmas-time, the tree bore the same wonderful fruit.

And you little girls and boys, when you gather round your richly decorated Christmas tree, think of the two poor children who shared their bread with a stranger Child.

HOW THE FIR TREE BECAME THE CHRISTMAS TREE

At the time when the Christ Child was born, all the people, the animals, and the trees, and plants were very happy. The Child was born to bring peace and happiness to the whole world. People came every day to see the little One, and they always brought gifts with them.

Now there were three trees standing near the stables where the Baby lay smiling in the sunshine. They saw the people and they wished that they, too, might give presents to the Christ Child.

The Palm said: "I will choose my most beautiful leaf, and place it as a fan over the Child."

The Olive said: "I will give Him sweet-smelling oil."

"What can I give the Child?" asked the Fir tree.

"You?" cried the others. "You have nothing to offer Him. Your leaves are like needles and would prick Him."

"Yes, you are right," said the poor little Fir tree. "I have nothing to offer the Christ Child."

Now quite near the trees stood the Christmas Angel, who had heard all that the trees had said. The Angel was sorry for the Fir tree who was so meek and without envy of the other trees. So, when it was dark, and the stars came out, he begged a few of the little stars to come down and rest upon the branches of the Fir tree. They did as the Christmas Angel asked, and the Fir tree shone suddenly with a beautiful light. And at that very moment, the Christ Child opened His eyes—for He had been asleep—and as the lovely light fell upon Him He smiled.

Every year people keep the dear Christ Child's birthday by giving gifts to each other, and every year, in remembrance of His first birthday, the Christmas Angel places in every house a fir tree, also. Covered with starry candles it shines for the children as the stars shone for the Christ Child. The Fir tree was rewarded for its meekness, for to no other tree is it given to shine upon so many happy faces.

(Adapted from old story by Aunt Hede in "Kindergarten Magazine.")

THE LITTLE CHRISTMAS TREE

One evening when Christmas Day was not very far off the fir trees were talking quietly together. The moonlight fell gently on them and though the night was cold they did not mind. They were all very happy. They were talking about Christmas Day. They were wondering which one of them would be chosen to be a Christmas tree. The tall trees felt very happy, and the trees with many branches, because they knew they would make beautiful Christmas trees.

But there was one tiny baby tree that could not help sighing. "All the trees will be praised," he sighed. "Everyone will say they are fit to be Christmas trees, but no one will want me. I am so small—so very small. No one will see how thick and green my needles are. No one will notice how true my branches grow. I am so small, I can hold only a very few toys and candles and yet—and yet in my heart of hearts I know I am a Christmas tree."

Now the Christmas Angel happened to be near and he heard the little fir tree

sighing and yet trying to hide the sighs and chatter cheerfully to the other trees. Full of love and pity the Christmas Angel hurried away and found St. Nicholas. He told St. Nicholas the sorrow and hope of the little fir tree.

St. Nicholas promised the Christmas Angel that the baby fir tree should really be a Christmas tree.

The next morning a woodman came to the forest with his axe over his shoulder. At home he had a little baby girl whom he loved very dearly, and he wanted to find a little tree as small as she was.

As soon as he saw the tiny fir tree he cried, "This is the very tree for my baby's Christmas tree!"

How glad and proud the baby fir tree was to be chosen first of all! His tall brothers stood around and waved their branches in surprise. The little fir tree stretched out his fragrant branches and his little heart beat fast; he was to be a real Christmas tree—he had his wish. Four pretty balls, six little candles and a tiny doll was all that he could hold; but the woodman's baby laughed and crowed to see the pretty lights, and the tree baby felt the joy and shared in the happiness.

And when at last the candles died and the baby slept the little fir tree watched all night. Though his needles were scorched and brown he did not mind—"I have not lived in vain," he said, "thank God for Christmas Eve."

(Adapted from Susan Coolidge's poem "The Little Christmas Tree.")

II. EASTER STORIES

MR. EASTER RABBIT

A long time ago in a far-off country, among pretty hills, there was a little village. Now the people in this village were not very rich. The reason was that no rains had fallen during the long summer months, so that the seeds and grains that were planted had not grown well, and the fields and meadows usually so green and rich were a dull grey brown.

But by being very careful the farmers were able to provide enough simple food

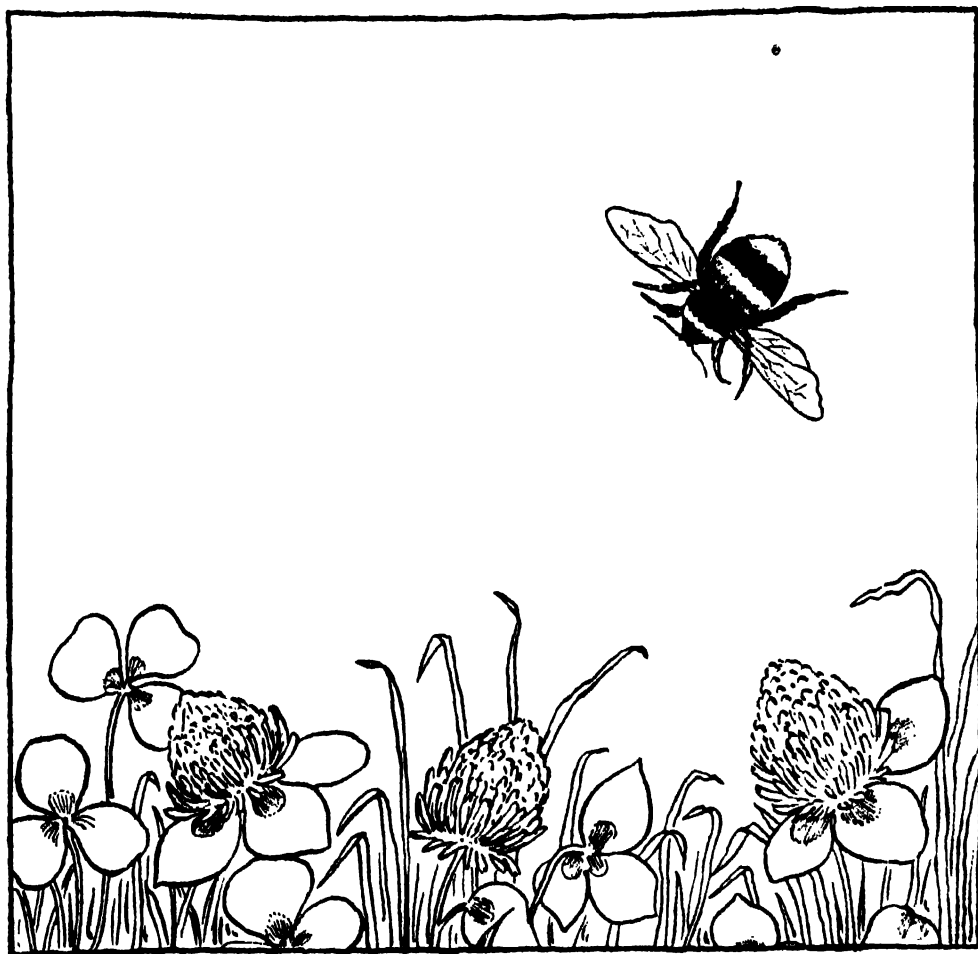


FIG. 19.—THE BEE AND THE CLOVER IN "THE LITTLE GIRL WHO WOULD NOT WORK."

for their families through the autumn and winter. They hoped the coming spring and summer would bring better fortune. The little children were not able to have many presents at Christmas-time, for their parents had so little money. But they were very happy and did not miss them as we would, because in that land they did not give many presents at Christmas-time.

Their holiday was Easter Sunday. On that day they had a happy time, and there were always sweets and gifts for the little boys and girls.

As Easter drew near the parents wondered what they should do this year for the children's holiday. It was hard enough to get

plain bread to eat; where could they find all the sweetmeats and pretty things that the little ones always had at Easter-time?

One evening some of the mothers met, after the children were in bed, to talk about what they should do.

One mother said: "We can have eggs. All the chickens are beginning to lay well; but the children are getting tired of eggs. They have them so often."

So they thought that eggs although good for their little ones would never do for an Easter feast. And they went home sorrowfully, thinking that Easter must come and go just like any other day for the children.

Now one mother was more sorry than

any of the others." Her little boy and girl had been so good and patient during the autumn and winter, but now they were talking about the beautiful time they were to have on the great holiday. How could she make it a beautiful time for them?

All that night she wondered and wondered. Towards the morning she suddenly cried right out in the dark: "I know! I have thought of something to make the children happy!"

She could hardly wait until daylight came. Then the first thing she did was to run into the next house and tell her neighbour of the bright idea that had come to her.

And the neighbour told someone else, and so the secret flew around, until, before night, all the mothers had heard it, *but not a single child.*

There was still a week before Easter, so there was a good deal of whispering; and the fathers and mothers smiled every time they thought of the secret.

When Easter Sunday came, everyone went first of all to church—mothers and fathers and children. When church was over, instead of going home, the older people suggested walking to the great woods at the back of the church. "Spring is coming," they said to the children, "perhaps if we look among the dried grass and bushes we may find some spring flowers."

So on they went, and soon the merry children were scattered through the woods, among the trees.

Then a shout went up—no, here, now there—from all sides.

"Father, mother, look here!"

"Look what I have found—some beautiful eggs!"

"Here's a lovely red one!"

"Here's a yellow one!"

"Here's a beautiful one!"

"Look at mine!"

And the children came running to their parents, bringing beautiful coloured eggs which they had found in the moss under the trees. What kind of eggs could they be? They were too large for birds' eggs; they were large like hens' eggs; but who ever saw a hen's egg so wonderfully coloured!

Just then, from behind a large tree where the children had found a nest full of gay eggs,

there jumped a rabbit, and with long leaps he disappeared in the deep woods, where he was hidden from view by the trees and bushes.

"It must be that the rabbit laid the pretty eggs," said one little girl.

"It must be the rabbit," said her mother.

"Hurrah for the rabbit! Hurrah for the Easter rabbit! Hurrah for Mr. Easter Rabbit!" the children cried; and the fathers and mothers were glad with the children.

So this is the story of the first Easter eggs, for, ever since then, in that far-away land, and in the other countries, too, Mr. Easter Rabbit has brought the little children at Easter-time some beautiful coloured eggs.

An old German legend.)

AN EASTER DREAM

Little Betty had been told the story of Mr. Easter Rabbit. She had gone to sleep thinking about it. Suddenly she felt some soft taps on her eyelids and, opening her eyes, she saw the dearest little white rabbit with bright pink eyes.

"If you please," it said, "I am queen of the Easter rabbits, and I thought you might like to go with me for a little visit to my beautiful Easterland."

"I should love to go," said Betty.

"Well, hold my paw and come with me."

To Betty's surprise the little white rabbit pulled her along quickly and soon they were floating through the air. Then they began to descend softly, softly, and Betty heard the far-away sounds of music.

Soon her feet touched the soft grass and letting go the little rabbit's paw she gazed around her in delight.

An avenue of tall Easter lilies stretched before her and two more tiny white rabbits were there to show her the way. As Betty and the rabbits walked along, beautiful music sounded from the bells and some of the lilies bent down and kissed the little girl and their breath was sweeter than any perfume.

Soon they came to the Queen's garden where a feast was spread under the soft shade of some tall ferns.

And then Queen Bunny gave Betty a large basket beautifully woven of leaves and grass. The Queen said: "We must now go and look for Easter eggs."

Betty set out joyfully. They came to a dense forest of ferns and a squeaky voice called out:

"Search for the one with long, long legs,
And you may find some Easter eggs."

"How queer," thought Betty. "Well, I must find a bird with long legs." And as she looked above the ferns she saw the bright eyes of a stork looking at her. The stork held out a long claw in greeting and pointing to a large nest among the ferns he said: "Little Betty may take what she sees and welcome."

"Oh, thank you," said Betty, and taking several of the large eggs she placed them carefully in her basket.

"Oh, they won't break," said Queen Bunny. "The eggs in Easterland never break."

Now the sweet song of a blackbird rippled from a tree:

"Come and see—come and see
What the blackbird has for thee."

There in a little nest were some little eggs, and all a beautiful blue just like the sky.

"Oh, you kind bird! You are good to give me these little blue eggs," said Betty.

"Don't mention it," said the blackbird.

Then a white dove cooed from its house near by:

"Coo, coo, you are true,
Come and take my gift for you."

The dove's gift was six eggs, pure white, with just the tiniest little pink dots on them.

Then Betty heard the Easter rabbit purring at her feet and looking down she saw her with soft white paws spread over a nest. And the Easter rabbit said:

"Put your hand into the ground,
And find what no one else has found."

"Well, I should like to find what no one else has found," said Betty, and, putting her hand into the moss-lined nest, she drew out three of the tiniest baby rabbits no bigger than eggs! Betty loved the soft little

things and put them carefully in the basket beside the eggs.

Then a loud cackling fell upon her ears:

"If you will bring me a piece of bread
I'll bring you some eggs, all bright and red."

She saw that the cackling came from a bright red little hen, who gave her some beautiful eggs in exchange for a piece of bread.

"Well," said Betty, "I never knew the little red hen laid red eggs before."

Then she heard a loud screech that made her jump and there was a peacock offering her a bunch of most gorgeous feathers:

"It matters not, my little one,
How stormy is the weather,
The fairies always care for those
Who have a peacock feather."

But Betty never received her bunch of peacock feathers, for the peacock gave another loud screech at the end of his rhyme and this woke Betty up.

Rabbits and basket and pretty eggs and feathers had all gone with the dream.

"If only," Betty sighed, "I could have kept the three tiny baby rabbits that were no bigger than eggs!"

HOW THE CHILDREN LEARNT SPRING WAS COMING

Once upon a time, many years ago, the winter had been long and cold. It seemed as though Spring would never come.

"What makes Spring so late?" said all the little children. "Let us go to the woods and see if she is there yet."

But when they came to the woods they found them cold and bare. There were no green buds, no flowers, no birds; only Jack Frost and the North Wind played among the trees.

The children ran home again. "It is lonely in the woods," they cried, "we will not go again until Spring is really there."

At last Spring really did come. When Jack Frost and the North Wind saw her, they waved farewell and ran away. The birds began to build their nests, the flowers

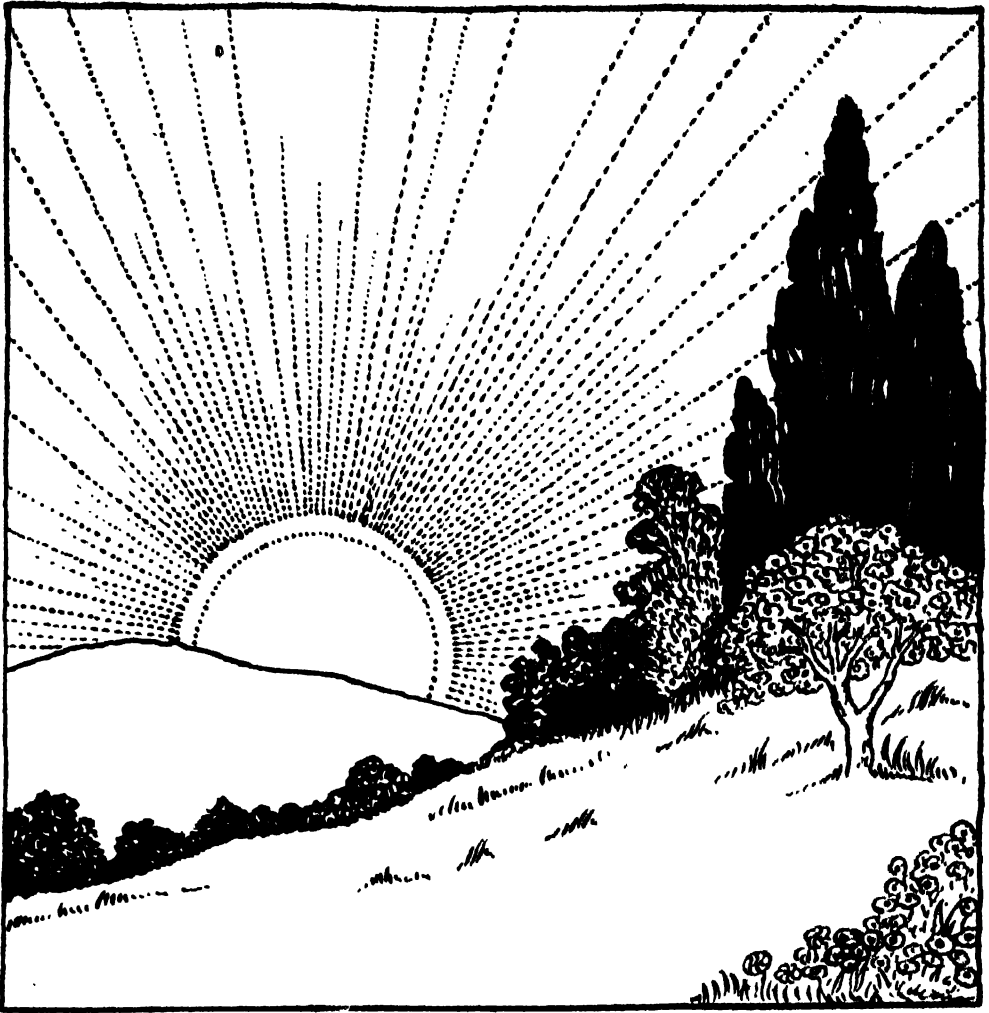


Fig. 20.—"WHEN THE SUN RISES."

To be drawn on the board to illustrate above story.

peeped up out of the ground, and the tree buds began to burst.

But the children—where were they? They did not know that Spring had come to the woods.

"Where are the children?" said Spring. "Last year and every year they came to play with the birds and flowers and animals."

"It is lonely without them," said the birds. "There is no one to listen to our songs."

"If they do not come soon," said the flowers, "our blossoms will all be gone."

And the baby rabbits and squirrels and foxes said, "We want to peep out of our holes and see the children."

"Perhaps they do not know we are here," said Spring.

"Robin, will you go and tell them."

"I am far too busy building a nest for my little ones," said the robin. "Send the fox. His little ones have already come."

"Will you go, Red Fox?" said Spring.

"I can't go," said the fox. "The people will think I have come to steal their chickens."

"That is true," said Spring. "We cannot

send you. Red Squirrel, will you go? Are your babies safe in their nest?"

"I can't go," said the squirrel. "My babies have not come yet, and I am very busy building a nest for them. I must collect moss. Ask the rabbit to go. He can hop and run. Besides, all children love rabbits."

Now the rabbit is very timid, but he felt so proud to hear that all the children loved him, that he said he would go. Then he suddenly thought of the dogs. "Oh! but the dogs!" he said. "The dogs will catch me as they would Red Squirrel."

"You can go at night when all the dogs are asleep," said Spring.

"So I can," said the rabbit. "I will go to-night."

Then the beasts and birds made a big basket of twigs and leaves, and lined it with soft green grass. Each bird brought an egg from her nest, until the basket was nearly full.

There were blue eggs and speckled eggs and brown eggs. How pretty they looked! Then they covered the eggs over with early Spring flowers, and tied the basket on bunny's back.

When evening came the rabbit set off for the town, hippity-hop, hippity-hop, hippity-hop. How strange and quiet it was in the streets with everyone asleep!

Bunny went to the first house where a child lived. He made a little nest out of the soft grass, and put into it one pretty egg and one Spring flower.

He put the nest on the doorstep and hopped on to the next house, and the next, and the next. When the sun was beginning to rise he hopped back to the woods, a very happy bunny.

"Why, Spring is here!" Spring is here!" cried the children next morning when they found the pretty nests on their doorsteps. "And see, here are the tracks of a rabbit's feet. He must have brought us the message."

So off they ran to the woods, shouting with happy voices, "Hurrah for bunny! Spring is here at last and bunny came to tell us. Hurrah for bunny!"

(*Old Tale*.)

(Children will like to see the Easter Rabbit, Fig. 18, drawn on the board. They can model him in clay and weave

little baskets for him of raffia and cane, and fill them with eggs and flowers.)

III. STORIES FOR THE DIFFERENT SEASONS

THE SUNBEAMS

(*A Morning Story for Summer Days*)

The sun was up.

The sky in the east had shown that he was on the way, for it had turned red and gold as he came near. And now the sun looked down on the earth, and there was a new day, and he sent out his beams to wake all from sleep.

A beam came to the little birds in the trees and they rose at once, flew about and sang as loudly as they could.

Then a beam came to the rabbit and waked her, and she gave her eyes a rub and ran out of the wood into the green field to eat the fresh grass.

A third beam came into the hen-house, and the cock flapped his wings and crowed, and all the hens flew out into the yard to get what they could to eat.

Now a beam came to the beehive, and the bee crept out of his hive, rubbing his wings with his legs, and flew off to the fields to get the honey from the buds and cups and bells which had just awakened. The last beam came to the bed of a lazy little boy who was too fond of sleep, and *he would not get up*. He hid his face from the sun and went to sleep again!

What do you do in the morning when you see the sun?

THE STORY OF A SEED

(*A Spring Story*)

A little girl, one day in the month of May, dropped a Seed into a small hole in the ground and said, "Now, seed, hurry and grow, grow, grow, until you are a tall plant covered with pretty green leaves and lovely flowers."

But the earth was very dry, for there had been no rain for a long time, and the poor wee Seed could not grow at all.

After lying patiently in the small hole for nine long days and nine long nights, it said to the ground around it, "Oh, Ground, please give me a few drops of water to soften my hard brown coat, so that it may burst open and set free my two green seed-leaves, and then I can begin to be a plant."

But the Ground said, "You must ask the Rain."

So the Seed called to the Rain, "Oh, Rain, please come down and wet the ground around me so that it may give me a few drops of water. Then will my hard brown coat grow softer, until at last it can burst open and set free my two green seed-leaves and I can begin to be a plant."

"But," said the Rain, "I cannot unless the Clouds hang low."

So the Seed called to the Clouds, "Oh, Clouds, please hang low and let the Rain come down and wet the ground around me, so that it may give me a few drops of water. Then will my hard brown coat grow softer and softer, until at last it can burst open and set free my two green seed-leaves and I can begin to be a plant."

But the Clouds said, "The Sun must hide first."

So the Seed called to the Sun, "Oh, Sun, please hide for a little while, so that the Clouds may hang low and the Rain come down and wet the Ground around me. Then will the Ground give me a few drops of water, and my hard brown coat grow softer and softer, until at last it can burst open and set free my two green seed-leaves and I can begin to be a plant."

"I will," said the Sun, and he was gone in a flash.

Then the Clouds began to hang lower and lower, and the Rain began to fall faster and faster, and the ground began to grow wetter and wetter, and the seed-coat began to grow softer and softer until at last it burst open!

Then out came two bright green seed-leaves and the little seed began to be a plant.

HOW THE DANDELIONS CAME.

(A Spring Story)

One dark night the Moon called to the Stars, "Come, little Stars, the Sun has gone

down; it is time for you to shine for the earth people. Come to your places."

But the little stars did not come. Again and again the Moon called. Then she sailed to where the little Stars were hiding behind a cloud. They pouted when they saw the Moon coming, and said, "We are not going to shine to-night."

The Moon looked sternly at them. She knew she must punish them. "Very well," she said, "I will call other stars to take your places. You must leave the sky."

The little Stars felt themselves falling, falling, falling. Down to the dark earth they fell.

Now they were sorry they had been naughty and they began to cry. They cried themselves to sleep in a soft grassy field.

In the morning the Sun came up from behind the hills. He looked down and saw the little Stars in the field.

"What are you doing here?" he asked.

"Oh, great Sun," they cried, "we were naughty and the Moon sent us from the sky. Take us back! Take us back!"

"No," said the Sun, "I cannot do that. You must obey the Moon. But I will let you shine upon the earth. You may be golden day stars and make people happy as they pass in the day, as you used to make them happy at night."

And so it was. The little dandelions have shone on the earth ever since and tried to make people happy by their bright faces.

(Old Legend.)

THE DAISY

(A Summer Story)

Out in the country, close by the roadside, there was a country house. In front of it was a garden, bright with flowers, and a paling painted brown. Outside the garden, close to the palings in the middle of the most beautiful green grass, grew a little daisy. The sun shone as warmly and as brightly upon it as on the great splendid garden flowers, and so it grew from hour to hour.

One morning it stood in full bloom with



Fig. 21.—THE BAT THAT TRIED TO HIDE THE SUN IN THE STORY "WHEN THE SUN RISES."

its little shining white petals spreading like rays round the little yellow sun in the centre. It turned to the warm sun, looked up at it, and listened to the lark singing high in the air. It was as happy as if it were a great holiday.

The lark flew down to it and sang: "Oh, how soft the grass is! How sweet the grass is! And what a lovely little flower, with gold in its heart and silver on its dress—gold in its heart and silver on its dress!"

And the yellow centre of the daisy did look like gold, and the little leaves around it shone silvery white. The bird kissed it with its beak and then flew up again into the blue sky.

When the sun went down, the daisy folded its petals and went to sleep and dreamed all night about the sun and the pretty bird and the song, "Gold in its heart and silver on its dress."

(Adapted from Hans Andersen.)

(Children like drawing the daisy on the board when they have heard this story—the yellow centre with yellow chalk and then the white rays around it. The rays or white petals need much practice, but little ones like to see who can draw the best daisy.)

THE LITTLE GIRL WHO WOULD NOT WORK

(A Summer Story)

There was once a little girl who loved to play all day out-of-doors among the flowers and bees.

One day her mother called her and asked her to wipe the dishes and tidy the room.

"You are old enough to do some work, little daughter," she said. "Even though you are a tiny child you can learn to be busy. The flowers and bees that you love, work hard."

But the little girl said: "Oh, mother, I do not like to work. Please let me go out in the woods and play just a little longer. I know all the flowers and animals are playing there."

So her mother said she might play a little longer.

The child ran out of the house, through the pleasant garden and into the shady woods. A red squirrel jumped across her path and she called to it, "Red Squirrel, you don't have to work, do you? You have nothing to do but play and eat nuts. Isn't that all?"

"Not work!" chattered the Red Squirrel. "I have quite a large family to support! Then I must lay up a store of nuts to last all the winter. Not work indeed! But

"I cannot stay and chatter with you." And he jumped away to collect more nuts. Just then a bee came buzzing by. The child said, "Little Bee, do you have any work to do? I never see you do anything but buzz and get honey from the lovely flowers."

"Work!" buzzed the Bee. "Why, I am always working. I never play. After I have filled my little bags with the flower honey I go home to my hive, build a beautiful honeycomb and fill the cells with honey; so you see I have plenty to do," and away he flew to alight on a sweet pink clover.

The little girl walked along very slowly, for she was thinking. Then she saw some ants which seemed to be in a great hurry. She spoke to one who was carrying a very large crumb of bread.

"That crumb of bread is too heavy for you, Ant," she said. "Drop it and come and play with me!"

"I don't care how heavy it is," said the Ant. "I was so glad to find it that I am willing to carry it. Oh, no, I cannot stop to play. Someone has just stepped on our house and crushed it and we are very busy building a new one. Indeed we have no time to play," said the Ant, as he set off again with his crumb of bread.

The little girl sat down upon a stone that she might think better. She said to herself: "All the creatures seem to have work to do and to like it, but I don't believe the flowers work. Do you work, Pink Clover?" she asked of a little flower growing at her feet.

"Oh, yes, I am very busy," said the Pink Clover. "I gather the sunbeams every morning and keep them shut in my petals quite carefully all day long. I drink up all the moisture I can find with my roots, and I grow, and grow, to make honey for the bees and to get ready for the seed time. The flowers must all work," said the Pink Clover.

Then the little girl ran home to her mother, and she said: "Mother, the squirrels and the bees and the ants and the flowers all work. I am the only idle one. I will make the house tidy. I am sure the ants have a tidy house."

So the little girl ran about busy and happy; and when she had done all she

could find to do, she ran out-of-doors to watch the flowers and bees at work and talk to them.

This is a little poem she learnt to say to the Pink Clover:

CLOVERS

The clovers have no time to play:
They feed the cows and make the hay,
And trim the lawns, and help the bees,
Until the sun sinks through the trees.

And then they lay aside their cares,
And fold their hands to say their prayers,
And drop their tired little heads,
And go to sleep in clover beds.

Then when the day dawns clear and blue,
They wake and wash their hands in dew;
And as the sun climbs up the sky,
They hold them up and let them dry;
And then to work the livelong day,
For clovers have no time to play.

H. L. JELLIFFE.

(Children will like to try to draw the bee and clover, Fig. 19.)

THE RED APPLE

(An Autumn Story)

Teddy was a little boy. One day he was sitting by the fire looking at a picture book. Suddenly he came to the picture of a big red apple. "How I should like a big red apple!" he said. "Perhaps if I had one mother would let me roast it over the fire." Then he remembered, that once when he was out for a walk he had seen an apple tree away down the road—a tree quite gay with apples.

"I'll get one," he cried. So he picked up his hat and ran out of the house as fast as he could. He ran by the side of the road through the fallen leaves, all red and yellow and brown. He loved the sound they made under his feet. At last he came to the big apple tree, but though Teddy looked and looked and looked at the tree and on the ground there was not an apple to be seen anywhere! "Oh!" cried Teddy, "where have all the

apples gone?" And the dried leaves on the apple tree seemed to rustle and say:

"All my apples have gone away,
All my leaves are going away,
You'll have to wait a year and a day."

Teddy was surprised. "But where have they all gone?" he asked. The apple tree only sighed and dropped its leaves.

Then Teddy saw a cow grazing in a field near and he ran to it and said: "Oh, mooly cow, will you tell me where all the apples have gone? I don't know."

But the cow went on eating and said:

"Moo! moo-moo!
I don't know, too."

Teddy laughed and ran across the field to where he saw a cat. The cat was very friendly and rubbed against his legs. "Oh, pussy," said Teddy, "do you know what they have done with the big red apples?"

But pussy only mewed and said:

"Mew, mew, me-ew!
I haven't an apple for you."

Teddy went on again and at last he met a friendly dog. The dog stopped and wagged his tail, so the little boy said to him: "Oh, doggie, can you tell me what they have done with the big red apples?" The dog kept on barking and wagging his tail:

"Bow, wow, wow!
There are no red apples now!"

So Teddy walked on till he came to the edge of the wood and there he saw a red squirrel. "Hullo, red squirrel," said Teddy, "can you tell me where the big red apples are?"

The squirrel looked at Teddy with his bright eyes:

"The farmer has hidden them all away
To keep for the cold and wintry days,"

he chattered. "That's what I do with my nuts." He ran to the foot of a chestnut tree and began to fill his little pockets with nuts to carry to his own storehouse.

And Teddy said, "Thank you!" and ran up the hill to the farmer's house as fast as he could.

The farmer was standing at his door. "What can I do for you, little boy?" he said.

"Please," said Teddy, "I want a big red apple."

The farmer laughed. "Come with me," he said, "and you shall pick one for yourself."

So Teddy and the farmer went to a big barn and there Teddy saw a lot of barrels standing in a row and every barrel was full of big red apples.

"Oh, what a lot!" said Teddy. "Why did you pick them all?"

"We did not want to leave them for Jack Frost," said the farmer.

"Does he like to eat them?" asked Teddy.

"He likes to pinch and nip them," said the farmer, "but we like to eat them; so we gather them in for the winter."

Teddy looked about the barn. There were some barrels of green apples, there was a great pile of turnips, another of potatoes, and then piles of yellow corn.

"Are you keeping all these things for winter?" asked Teddy.

"Yes," said the farmer, "we've been gathering in the harvest—all the good things that the summer has given us."

"And do the squirrels gather in a harvest, too?" asked Teddy.

"Yes," said the farmer. "The squirrels have a storehouse."

"Then that was how the squirrel knew where the red apples were," thought Teddy.

"Come," said the farmer. "You can choose a big red apple for yourself."

Teddy went up to the barrel and picked out the biggest red apple he could find.

"Thank you, Mr. Farmer," he said; and then he ran home to show the apple to his mother.

"Why," said his mother, "wherever did you find that apple?"

"Oh," said Teddy, "I went to the apple tree, but it didn't have any. Then I asked the cow where the big red apples were, but she didn't know. I asked the cat and she didn't know, and then I asked the dog and he didn't know; but then I met the squirrel,



Fig 22.—THE JACK-O'-LANTERN IN "WHEN THE SUN RISES."

and he knew, because he gathers in a harvest himself. So he told me to go to the farmer. And I went to the farmer and asked him for a big red apple, and he gave me this great big one!"

Teddy stopped, out of breath.

"Well!" said his mother. "It is a fine apple. Get me a piece of string and

I will show you how to roast it over the fire."

So Teddy found a piece of string and when his mother had hung the apple over the fire, he sat and watched it twisting and turning until it was soft and roasted all over.

How good it smelt! And how good it tasted!

(Let the children make a barn and model different things to go in it: apples, potatoes, turnips, etc.)

WHEN THE SUN RISES

(This is a story little ones like to play. A great red rising sun can be drawn on the board as shown in Fig. 20. This can be covered up until the right moment. The blinds can also be drawn down to represent night.)

IN THE NIGHT

Animals and creatures and things that love the night or can shine only in the night are talking together. The children can think of the names themselves and look at the pictures of these creatures—the owl, the bat (Fig. 21), the mole, the glow-worm, Jack-o'-lantern (Fig. 22), Will-o'-the-Wisp.

Owl: What a lovely dark night this is, friends!

Bat: Yes, I am glad the bright light of the sun has been put out!

Mole: Yes, indeed! I love the darkness.

Will-o'-the-Wisp: So do I; no one can see my pretty light when the sun is shining.

Jack-o'-lantern: Nor mine. I think my brothers, the Glowworm and the Will-o'-the-Wisp, and I, give all the light anyone needs.

Glowworm: You are right, my brother. The sun may as well hide himself for ever. We give much better light.

Will-o'-the-Wisp: Indeed we do. No one gets a pain in his eyes looking at us.

Owl: I agree with you. The sun shines too brightly. I do not like him. He makes me blink and wink.

Bat: Yes, and there is always so much noise in the woods when he rises. All the birds begin to chirp and chatter. It quite makes my head ache.

Mole: I wish the sun would stay away all the time.

Will-o'-the-Wisp: My brothers and I never shine when he is out. We do not like him. We only shine at night.

Mole: We should certainly be better off without the sun. Suppose we frighten

him away when he tries to peep over the tree-tops in the forest.

All: Good! Good!

Owl: I will do my part. The minute I see him I will screech as loud as I can. That ought to frighten him.

Will-o'-the-Wisp: Jack-o'-lantern, Glowworm, and I will shine so brightly that the sun's light cannot be seen. Will we not, brothers?

Jack-o'-lantern: } Indeed we will!
Glowworm: }

Mole: And I will throw up a sandhill so high that he will never be able to see over the top of it.

Bat: I will spread my wings so that they will cut off every ray of light he tries to send to the earth.

Owl: I tell you, things will be different in this forest after to-night. No more bright sun to hurt one's eyes! No more screaming of birds when the sun rises.

Mole: Look! Look! What is that red light at the back of the trees?

Bat: The sun, the sun, he is trying to rise! Frighten him, brother Owl! Screech as loud as you can!

Owl: Whoo! Whoo! Whoo! Tu-whit, tu-whoo, whoo! whoo!

Mole: Shine, Will-o'-the-Wisp! shine, Jack-o'-lantern! shine, Glowworm! Shine with all your might!

Jack-o'-lantern: We are shining as hard as ever we can.

Mole: But the sun is growing brighter every minute! You must shine harder!

Jack-o'-lantern: I can't shine brighter. I'm doing my very best!

Will-o'-the-Wisp: } Oh, my light is going
Glowworm: } out!

Birds of the Forest: Twitter, twitter, twitter.

Owl: Listen! the birds are beginning to sing. My throat is sore with screeching so loud. The sun may shine for all I care. Good-by, I am off to my hollow tree. I will meet you here this evening when the sun has gone down.

Bat: I will fly away, too, if my poor wings will carry me. I have stretched them out so long, they just ache. Good-bye, little Mole.

Mole: Good-bye, Friend Bat. I am tired of

throwing up a sandhill. We've frightened that sun enough for once. I will crawl into my hole till night comes.

(ALBRECHT SEGERSTEDT, *from the Swedish*.)

(Children will enjoy trying to draw the sun and the bat and the Jack-o'-lantern. The bat can be cut out of brown paper. The pumpkin can also be cut out of brown paper and have red paper pasted behind the holes for the eyes, nose, and mouth as in Fig. 22. The Jack-o'-lantern is made from a pumpkin or a melon.)

THE SEASONS

(Children of six and seven like to dramatise this story-poem of the seasons in the way shown below.)

First Child

What does it mean when the blackbird comes
And builds its nest, singing sweet and clear?
When violets peep through the blades of grass?

Second Child

These are the signs that spring is here.

Third Child

What does it mean when the berries are ripe?
When butterflies flit and honeybees hum?
When cattle stand under the shady trees?

Second Child

These are the signs that summer has come.

Fourth Child

What does it mean when the crickets chirp?
And away to the south the birdies steer?
When apples are falling and leaves grow brown?

Second Child

These are the signs that autumn is here.

Fifth Child

What does it mean when the days are short?
When leaves are gone and brooks are dumb?
When fields are white with drifted snow?

Second Child

These are the signs that winter has come.

All

The old stars set and the new ones rise,
The skies that were stormy grow bright and clear;
And so the beautiful, wonderful signs
Go round and round through the changing year.

GEORGE COOPER.

CHAPTER VIII

BIBLIOGRAPHY OF FAIRY TALES AND TALES FOR LITTLE ONES

List of Standard Fairy Tale Books. List of Fairy Tale Books of All Nations. List of Books most suitable for the Infant School Teacher. A Few Standard Picture Books for Fairy Tales.

AT the beginning of this chapter we give a list of standard fairy tale books, and then a list of fairy tale books of all nations. As far as possible we have included only standard works, whether out of print or not. Some of the best source books are out of print, but they can generally be obtained second-hand. These lists will interest those who want to find their own material and adapt their own fairy tales.

The third list of books contains only those most useful in the infant school. It will save the busy teacher time, because in practically all the books the stories are adapted to little ones. This list contains books that deal not only with the fairy world, but with the everyday world too. Most of the books or stories in these books have been mentioned in the different chapters already. A few new ones are added.

I. STANDARD FAIRY TALE BOOKS

1. *Andersen, Hans Christian*

"Fairy Tales," Edited by W. A. and J. K. Craigie (Oxford University Press, 10s.).

2. *Asbjørnsen, P. C.*

"Fairy Tales from the Far North" (David Nutt).

"Round the Yule Log."

3. *Dasent, Sir George W.*

"Popular Tales from the Norse" (Routledge).

"Tales from the Fjeld" (Putnam).

4. *Grimm, Jacob and William*

"Household Tales," Margaret Hunt, Bohn's Library (Bell & Sons).

"Household Tales," Lucy Crane, Walter Crane (Macmillan).

"German Popular Stories," Tr. Edgar Taylor (Chatto & Windus).

"Fairy Tales," Arthur Rackham (Heinemann).

5. *Harris, Joel Chandler*

"Uncle Remus, His Songs and Sayings" (Routledge, 2s. 6d.).

"Nights with Uncle Remus" (Routledge, 2s. 6d.).

"Little Mr. Thimblefinger" (Houghton Mifflin Co., Boston, U.S.A.).

"Uncle Remus and His Friends" (Houghton Mifflin Co., Boston, U.S.A.).

6. *Jacobs, Joseph*

"English Fairy Tales," 2 vols. (Putnam and David Nutt).

"Celtic Fairy Tales," 2 vols. (Putnam and David Nutt).

"Indian Fairy Tales" (Putnam and David Nutt).

"The Most Delectable History of Reynard the Fox" (Macmillan).

"Europa's Fairy Tales" (Putnam)

7. Perrault, Charles

- "Tales of Mother Goose," Welsh (Heath).
 "Fairy Tales" (Appleton).
 "Tales of Past Times" (Temple Classics).
 "Popular Tales," Edited by Andrew Lang (Oxford Clarendon Press).

French Tales," H. M. Alcott (Holt & Co., New York City).

"Tales of Mother Goose," Charles Perrault. See first list.

"Fairy Tales," De Segur (1799-1874) (Winston, Philadelphia, Penn.).

"Stories of Old France," L. W. Pitman (American Book Co., New York).

II. FAIRY TALES OF ALL NATIONS**1. Arabia**

- "Arabian Nights' Entertainments," by E. W. Lane (Bell).
 "Arabian Nights," Edited by Padraic Colum (Macmillan).
 "The Arabian Nights," Edited by F. J. Alcott (Harrap, 3s. 6d.).

2. Celtic Fairy Tales

Joseph Jacobs. Given in first list.

3. Chinese

- "Wonder Tales from China Seas," F. J. Alcott (Longmans).
 "Chinese Fairy Tales," Herbert A. Giles (Gowans & Gray Ltd.).

4. Danish

- "Danish Fairy Tales," Bay (Harper, U.S.A.).

5. English

- "English Fairy Tales," Joseph Jacobs. See first list.
 "Folk and Fairy Tales," Hartland (Camelot Series).
 "English Fairy Tales," F. A. Steel (Macmillan, 7s. 6d.).

6. French

- "Favourite French Fairy Tales," Tr. by B. Douglas from Perrault, etc. (Harrap, 3s. 6d.).
 "The Whirling King and Other

7. German

- "German Fairy Tales," Grimm (Bohn's Libraries). See also first list.

8. Holland

- "Wonder Tales from Windmill Lands," F. J. Alcott (Longmans).

9. Hungary

- "The Hungarian Fairy Book," N. Pogany (Ernest Benn).

10. Indian Fairy Tales

In addition to Joseph Jacobs.

"A Collection of Eastern Stories and Legends," Marie Shedlock (Routledge, 2s. 6d.).

"Old Deccan Days," Frère (John Murray).

"Indian Fairy Tales," M. Stokes (Ellis & White), out of print.

"Tales of the Punjab," F. A. Steel (Macmillan).

"Folk Tales of Bengal," Day (Macmillan, 3s. 6d.).

"Tales of the Sun," Mrs. Kingscote (W. H. Allen). Out of print.

"Buddhist Birth Stories," David Rhys (Trübner). Out of print.

"Wide Awake Stories," Steel and Temple (Trübner). Out of print.

"Folk-Tales of Kashmir," Knowles (Trübner). Out of print.

11. *Italian Fairy Tales*
 "Italian Fairy Tales," Crane (Macmillan). Out of print.
 "Italian Fairy Book," A. Macdonnell (Ernest Benn).
 12. *Irish Fairy Tales*
 "Fairy Legends of the South of Ireland," T. Crofton Croker (G. Allen & Unwin).
 "The Irish Fairy Book," A. P. Graves (Ernest Benn).
 "Donegal Fairy Tales," S. MacManus (Doubleday, Page & Co., New York).
 "In Chimney Corners," S. MacManus (Doubleday, Page & Co., New York).
 "Irish Fairy Tales," Yeats (T. Fisher Unwin).
 13. *Japanese*
 "Green Willow and Other Japanese Fairy Tales," G. James (Macmillan, 15s.).
 "The Japanese Fairy Book" (Constable).
 "Fairy Tales from Far Japan," Susan Ballard (R.T.S.).
 "Gleanings in Buddha-Fields," Lafcadio Hearn (Kegan Paul).
 "Japanese Fairy Tales," Oyaki (Dutton, U.S.A., New York City).
 14. *Manx*
 "Manx Fairy Tales," Morrison (David Nutt).
 15. *Norse*
 Dasent and Asbjørnsen. See first list.
 16. *New World Fairy Tales (Red Indian)*
 "The New World Fairy Book," Howard Angus Kennedy (J. M. Dent & Sons, Ltd.).
 17. *Papuan*
 "Papuan Fairy Tales," Kerr (Macmillan).
 18. *Persian*
 "Persian Fairy Tales," Lorimer (Macmillan).
 "Persian Fairy Tales," Stephen (Dutton, U.S.A.).
 "Persian Fairy Tales," Clouston (Stokes, U.S.A.).
 19. *Russian*
 "Russian Fairy Tales," R. Nisbet Bain (Harrap).
 "Cossack Fairy Tales," R. Nisbet Bain (Harrap).
 "Picture Tales from the Russian," V. Carrick (B. Blackwell).
 20. *Scottish*
 "The Scottish Fairy Book," E. W. Grierson (Ernest Benn).
 21. *South African*
 "Native Fairy Tales of South Africa," E. L. McPherson (Harrap).
 "South African Fairy Tales," Honey (Baker & Taylor, U.S.A.).
 "Fairy Tales from South Africa," Bourhill and Drake (Macmillan).
 22. *West African*
 "West African Folk Tales," W. H. Baker and C. Sinclair (Harrap).
 23. *Welsh*
 "The Welsh Fairy Book," W. Jenkyn Thomas (Ernest Benn).
- III. A USEFUL LIST OF STORY BOOKS FOR TEACHERS IN INFANT SCHOOLS AND KINDERGARTENS
- Bailey, Carolyn Sherwin*
 "For the Children's Hour" (Philip, 9s.).

Bannerman, Helen

"The Story of Little Black Sambo"
(Chatto & Windus).

Barrie, James

"Peter Pan in Kensington Gardens"
(Hodder & Stoughton).

Blyton, Enid

"The Enid Blyton Book of Bun-
nies" (Newnes).

Brooke, Leslie

"Johnny Crow's Garden" (Frederick
Warne & Co.).

Bryant, Sara Cone

"How to Tell Stories to Children"
(Harrap).

"Stories to Tell to Children" (Har-
rap).

"Stories to Tell the Littlest Ones"
(Harrap).

Carrick, Valery

"Picture Tales from the Russian."
In 4 vols., 1s. each; complete
edition 6s. (Basil Blackwell, Ox-
ford).

Chadwick, M. L. P., and Freeman, E. G.

"Chain Stories and Playlets"
(Harrap).

Clark, Elizabeth

"Stories to Tell and How to Tell
Them" (University of London
Press).

"More Stories and How to Tell
Them" (University of London
Press).

Coe, Fanny E.

"The Book of Stories for the Story-
Teller" (Harrap).

Holbrook, Florence

"A Book of Nature Myths" (Harrap).

Lansing, M.

"Rhymes and Stories" (Ginn).

"Fairy Tales," in 2 vols. (Ginn).

Lindsay, Maud

"A Story Garden for Little Children"
(Harrap).

"Mother Stories" (Harrap).

"More Mother Stories" (Harrap).

"More Stories to Tell" (Harrap).

Marzials, Ada M.

"In the Land of Nursery Rhyme"
(Allenson).

"Stories for the Story Hour"
(Harrap).

"More Tales in the Land of Nursery
Rhyme" (Allenson).

Potter, Beatrix

"Peter Rabbit" (Frederick Warne
& Co.).

"Squirrel Nutkin" (Frederick Warne
& Co.).

Poulsson, Emilie

"Child Stories and Rhymes" (Mil-
ton Bradley Co., Springfield, Mass.,
U.S.A.).

"In the Child's World" (Philip).

Rhys, Ernest

"English Fairy Book (Fairy Gold)"
(Ernest Benn).

Richards, Laura E.

"Five-Minute Stories" (H. R. Allen-
son).

"The Golden Windows" (H. R.
Allenson).

Seers, H. W.

"Nature Stories to Tell to Children"
(Harrap).

Sharp, Mrs.

"Dame Wiggins and Her Cats"
(G. Allen & Unwin).

Steel, Flora Annie

"English Fairy Tales" (Macmillan).

"Tales of the Punjab" (Macmillan).

IV. A FEW STANDARD PICTURE BOOKS FOR FAIRY TALES

Brooke, Leslie

"The Golden Goose Book"
(Frederick Warne & Co.).

"The House in the Wood"
(Frederick Warne & Co.).

"The Truth About Old King Cole"
(Frederick Warne & Co.).

Caldecot, Randolph

Picture Books:

"The House that Jack Built"
(Frederick Warne & Co.).

"Hey Diddle Diddle Book"
(Frederick Warne & Co.).

Crane, Walter

Picture Books:

"Cinderella" (John Lane).

"Mother Hubbard" (John Lane).

"Red Riding Hood" (John Lane).

"This Little Pig" (John Lane).

Grimm, Jacob and William

"Cruikshank Fairy Book," Cruikshank (Putnam).

Grimm

"Cherry Blossom," Helen Stratton
(Blackie & Sons).

Jerrold, Walter

"The Big Book of Fairy Tales,"
Robinson (Blackie).

Sharp, Mrs.

"Dame Wiggins of Lee." Introduction by Ruskin, Kate Greenaway
(George Allen).

CHAPTER IX

SYLLABUS OF STORIES

I. CHILDREN UNDER SIX

Bible Stories

FOR the child of five and six upwards there is a wealth of material to be found in the Bible.

The stories of the baby Moses, the baby Isaac, little Samuel, the boy Joseph, the boy Timothy, the boy David, are very suitable for little ones of five and six. They love also to hear of the mother and the baby Samson, of Ishmael and Hagar and other mothers and babies of long ago. Especially interesting to them is the story of the Babe of Bethlehem.

Care must be taken not to introduce any one of these stories unless the child is ready for them. Some can well be left for the six- and seven-year olds.

Tales of the Grimms

The Cat and the Mouse in Partnership.

The Wonderful Porridge Pot.

The Sparrow and His Four Children.

The Star Dollars adapted in "How to Tell Stories," Bryant (Harrap).

Norse Tales

Doll i' the Grass.

Three Billy Goats.

Why the Bear is Stumpy-tailed.

English Tales by Jacobs

The Cat and the Mouse.

Henny Penny.

Johnny Cake.

The Old Woman and Her Pig, "How to Tell Stories to Children," Bryant.

The Story of the Three Bears, "How to Tell Stories to Children," Bryant.

The Story of the Three Little Pigs, "How to Tell Stories to Children," Bryant.

Teeny Tiny. See Chapter IV. Mouse and Mouser. "English Fairy Tales" (Joseph Jacobs).

Modern Fairy Tales by Andersen

Thumbelina.

Tales from Uncle Remus

Uncle Remus Tales, by Harris, in "Nights with Uncle Remus," etc. Brer Rabbit and the Tar Baby.

Heyo, House. Brother Rabbit Takes some Exercise.

Picture Tales from the Russian by Valery Carriak

The Bun.

The Little House.

Mr. Samson Cat.

Miscellaneous Tales

How the Children Learnt Spring was Coming. See Chapter VII.

The Adventures of a Little Field Mouse, "Stories to Tell," Bryant.

Billy Bob Tail. See Chapter V.

The Little Red Hen and the Wheat, "Stories to Tell," Bryant.

How the Camel Got His Hump,
 "Just-So Stories," Kipling.
 The Lambikin, "Tales of the Punjab," Steel; "Indian Tales," Jacob.
 Little Jack Rollaround, "Stories to Tell," Bryant.
 The Little Rabbit Who Wanted Red Wings. See Chapter V.
 I Won't Wait, by Robert Southey. See Chapter IV.
 Little Spider's First Web. See Chapter IV.
 Little Top-knot (Swedish). See Chapter V.
 Wee Robin's Christmas Song, "Rhymes and Stories," by M. Lansing (Ginn & Co.).
 Fiddle-Diddle-Dee. See Chapter V.
 The Story of a Seed. See Chapter VII.
 The Wishing Book. See Chapter IV.
 Why the Morning Glory Climbs, "How to Tell Stories," Bryant.
 "The House that Jack Built," R. Caldecot (Frederick Warne & Co.).
 "The Story of Little Black Sambo," Helen Bannerman (Chatto & Windus).
 "The Tale of Benjamin Bunny," Beatrix Potter (Frederick Warne & Co.).
 "The Tale of Peter Rabbit," Beatrix Potter (Frederick Warne & Co.).
 "Johnny Crow's Garden," Leslie Brooke (Frederick Warne & Co.).
 Dust Under the Rug, "Mother Stories," M. Lindsay (Harrap).
 The Little Christmas Tree. See Chapter VII.
 The Red Apple. See Chapter VII.
 The Christmas Cake, "More Mother Stories," M. Lindsay (Harrap).
 The Little Gray Pony, "Mother Stories," M. Lindsay (Harrap).

Many other stories to add to this list will be found in Chapters IV, V, and VII.

II. CHILDREN OF SIX AND SEVEN

Bible Stories

Stories of the great travellers, Abraham and Jacob.
 The Boyhood of Isaac. Shepherd Life.
 The Story of Joseph.
 The Story of Moses.
 Gideon the Warrior.
 David and His Songs.
 David and Goliath.
 Daniel in the Lions' Den.
 The Good Shepherd, "For the Children's Hour" (Philip).

Tales of Perrault

Many teachers leave these stories for the Junior School. As there is a big choice for little ones given below, they might be omitted.

Cinderella.
 Little Thumb.
 Puss-in-Boots.
 Red Riding Hood.
 Sleeping Beauty.
 The Three Wishes.

Tales of the Grimms

Birdie and Lena.
 Briar Rose. (Perhaps leave for Junior School.)
 Chanticleer and Partlet.
 The Elves and the Shoemaker.
 The Hare and the Hedgehog.
 The King of the Birds.
 Little Brother and Sister.
 The Little Lamb and the Little Fish.
 Little Red-Cap.

Little Snow White.

Little Two-Eyes.

Snow White and Rose Red. (Perhaps leave for Junior School. A beautiful story.)

The Spider and the Flea.

The Straw, the Coal, and the Bean.

The Town Musicians of Bremen.

The Wolf and the Seven Kids.

Norse Tales

The Lad Who Went to the North Wind, "Norse Fairy Tales" (Routledge).

The Cock and Hen, "Norse Fairy Tales" (Routledge).

Lord Peter, "Norse Fairy Tales" (Routledge).

One's Own Children are Always Prettiest, "Norse Fairy Tales" (Routledge).

The Sheep and the Pig Who Set up House. See Chapter VI.

English Tales by Jacobs

The History of Tom Thumb.

How Jack Went to Seek His Fortune.

Mr. Miacca. See Chapter VI.

The Magpie's Nest.

Titty Mouse and Tatty Mouse.

Modern Fairy Tales by Andersen

The Fir Tree.

Five Peas in a Pod.

Ole-Luk-Oie, Thursday, Wedding of a Mouse.

The Snow Man.

The Steadfast Tin Soldier.

What the Moon Saw:

Little Girl and Chickens.

The New Frock (realistic).

The Bear Who Played "Soldiers."

Uncle Remus Tales

The Strongest. See Chapter VI.

Brother Rabbit and the Little Girl.

Brother Rabbit Takes a Walk.

Miscellaneous Tales

The Goats in the Rye Field (Norwegian). See Chapter VI.

The Country Mouse and the City Mouse, "Stories to Tell," Bryant.

Dame Wiggins and Her Cats, Mrs. Sharp (George Allen).

The Discontented Pendulum in "In the Child's World," Poulsson.

Going to the Fair (French). See Chapter VI.

The Elephant's Child, "Just-So Stories," Kipling.

The Legend of the Christmas Tree. See Chapter VII.

The Foolish Timid Rabbit. See Chapter VI.

How Brother Rabbit Foiled the Whale, "Stories to Tell," Bryant.

Mr. Easter Rabbit. See Chapter VII.

The Jackal and the Alligator, "Stories to Tell," Bryant.

The Jackals and the Lion, "Stories to Tell," Bryant.

Little Half Chick (Spanish), "Stories to Tell," Bryant.

Oeyvind and Marit, from "The Happy Boy," Bjørnstjerne Bjørnson, "The Book of Stories for the Story-Teller," Coe (Harrap).

The Selfish Sparrow and the Homeless Crow. See Chapter VI.

The Straw Ox, "Picture Tales from the Russian," Valery Carfick.

The Talkative Tortoise, "Stories to Tell," Bryant.

The White Cat, "Fairy Tales," D. Aulnoy; "Fairy Tales," vol. 2, Lansing (Ginn & Co.). This story might be left for the Junior School.

Why the Evergreen Trees Never
Lose Their Leaves, "The Book
of Nature Myths," Holbrook.

How Jack Got a New Shirt (Nor-
wegian). See Chapter VI.

Belling the Cat, Æsop.

The Wind and the Sun, Æsop.

Raggylug, Ernest Seton Thompson,
Bryant, "How to Tell Stories to
Children."

Blackberrying, Mrs. H. C. Cradock,
Everyday Stories to Tell."

The Cat that Walked by Himself,
"Just-So Stories."

Out of the Nest, Maud Lindsay,
"More Mother Stories."

Epaminondas and his Auntie, S. C.
Bryant, "How to Tell Stories to
Children."

Many other stories to add to this list
or to substitute for the stories given
will be found in Chapters V, VI, and
VII.

INTRODUCTION

TO NATURE TALKS

MORE and more emphasis is being laid on the importance of teaching Nature Study in our Schools. The difference that an appreciation of beauty and a love for animals and birds makes to a child's character is unbelievable unless actually experienced. There are still some cruel, unthinking children, who delight to fling stones at every bird they see, stamp on toads, tease kittens, and hack off flower heads—but not many. Most children nowadays delight in flowers, welcome birds to their bird-table, and long to have pets of their own. A toad is brought to school as a great prize, not heedlessly battered to death. A stray kitten may wilt through over-kindness, but certainly not through ill-treatment.

Teachers and a new outlook

This different outlook on the world of Nature, with all that it means of

gentleness, compassion, and kindness, has been largely due to the teachers. The most important teachers of Nature Study are those who deal with the youngest children of all. If a child has developed a real love for animals and a delight in flowers and trees in the Infant School, he is likely to carry those characteristics right through the Upper Schools into manhood. Conversely, if he conceives a dislike for Nature Study, due to wrong methods, he is unlikely to lose it. Therefore the Infant School teacher must be sure to use the right methods, or she will do irreparable harm.

Some vital questions

But what are the right methods for the Infant School? What should the teacher know? What should she teach? More important still, what should she *not* teach?

This Section attempts to answer

these questions in a straightforward and simple manner. All those things that delight the heart of a child—Bird-Tables, Caterpillars, School Pets, School Aquariums, Bulb-Growing, School Gardens and many other things—are fully dealt with, so that the teacher may without trepidation begin to make her Nature Study a living and delightful section of the time-table. Let her try but a few of the things suggested—

for example, a Bird-Table and an Aquarium—and she will find that her classroom rapidly becomes the most popular in the whole of the school!

The beginnings of Geography are also to be found in the study of Nature—but this aspect, being fully dealt with in "The Approach to Geography," is only lightly touched upon in the Section for Nature.

NATURE TALKS

CHAPTER I

AN ALL-ROUND-THE-YEAR CALENDAR

The Weather, Proverbs and Sayings, Flowers, Gardens, Bulbs, Trees, Insects, Pond Life, Animals and Birds.

BEFORE any teacher of Nature Study can make schemes for the coming term she must know what plants, animals, birds, insects, and so on will be available as material. She must know what is to be found in the woods at any season of the year, what may be discovered in the ponds, which birds migrate, and which do not, together with many other things of the same kind. In fact, she must be quite a good naturalist.

A great number of teachers are nothing of the kind, either through lack of opportunity or because they have no real inclination towards the subject. Nevertheless, they have to teach it. Other teachers love the subject, and the greater their love for it, the more enthusiasm do they kindle in the children. For those who know much, or those who know little, an All-Round-the-Year Calendar will be found most useful, and with its aid excellent schemes may be drawn up for any term. A few typical schemes will be shown later.

Each month will be taken, and a list made of the various plants, birds, animals, and so on, that may then be found. Naturally, weather conditions will modify the Calendar, but in normal seasons the flowers, the birds, etc., set out therein will be found. Northern

districts may find the Calendar ahead of them in the matter of flowers, insects, and birds, but this may easily be planned for and adjusted.

The infant teacher's duty is not to enter into learned explanations, to give lists of names to her (probably very much bored) children, nor to dissect flowers, but to awaken their interest in plant and animal life, to kindle admiration for beauty, to arouse wonder at the marvels around them. She does not impart information unless the child asks for it, for once the small child's sense of wonder is spoilt by being crushed under information he is not yet ready for, he will rarely develop a zest for Nature Study in the Upper Schools. If the infant teacher can manage to pass on her children full of eagerness and enthusiasm at the age of seven, the age when they are ready to absorb more definite and exact knowledge, she will have done well.

But although she does not impart much definite information to the children, leaving them to see, handle, play with, or marvel at the various things brought, this does not mean that she needs to know little herself. The more she knows, the keener will be the zest shown by the children, for they instinctively sense the sure know-

ledge of and love for Nature that she possesses, and delight in it. Every teacher knows that the greater her understanding of any subject the easier she finds it to interest her children. They feel her own eagerness and respond to it.

But Nature is a very wide subject, and it is almost impossible for a teacher to know every aspect. It is equally impossible to deal fully with it here. The Calendar is no more than a guide, and the teacher should supplement it by taking walks into the country or by the sea-shore whenever she can. Then she will be able to clothe the dry skeleton of the Calendar and make it glow with life.

JANUARY

The Weather

January is usually cold and frosty, and very often brings snow. Ponds and puddles are frozen. The days begin to lengthen out. The landscape is wintry looking, but very beautiful when covered by fresh-fallen snow. Sometimes the month is mild, but this, so old proverbs tell us, is a bad omen, for it means a bitter spring.

Proverbs and Sayings

- "If the grass grow in Janivier,
'Twill grow the worse for it all the year."
- "As the day lengthens so the cold strengthens."
- "A kindly and good Janivier
Freezes the pot by the fier."
- "In January if the sun appear
March and April pay full dear."

Flowers

In spite of cold and frosty nights, quite a number of flowers may be found in chill January. They are, of course, most likely to be discovered in sheltered places.

Look for the Common Chickweed, which is always in flower this month. It has a curious line of hairs running down its stems. This alternates from side to side in passing each pair of leaves.

The Red Dead Nettle may be found, also Groundsel, Common Furze (Gorse), Shepherd's Purse, Dog's Mercury, Dandelion, and possibly a stray Primrose and Daisy. In our gardens will be seen Snowdrops, Violets, and the little green-frilled Aconites, pushing up in sheltered places. Yellow Jasmine is also blooming on the walls, and the quaint Christmas Rose is still growing sturdily on its thick stalk in the beds. Laurestinus is also in bloom.

There are many Lichens to be found now.

Bulbs

Bulbs that were planted in bowls at the beginning of the autumn should now be showing buds, or should be in flower. Roman Hyacinths should be in full bloom.

Note that this is a good time of year to buy a fine stock of bulbs cheaply. They can often be bought in hundreds at a most moderate price for outdoor planting, and the alert teacher will get a good store in whilst they are cheap.

Trees

There are plenty of winter twigs for the teacher to choose for the vases in her classroom (see Chapter on Trees for full details of these). There are also the catkins of the Hazel tree (called by the pretty name of Lambs' Tails) and those of the Alder. Look for the bud-like seed-bearing flowers of the Hazel towards the end of the month. The teacher will recognise

these by the little crimson spikes (the stigmas) sticking out of them.

Young green leaves may be found sprouting in sheltered hedges, or in the woods. The teacher will particularly notice the Honeysuckle, which is often covered with tender young leaves very early in the year. These respond eagerly to the warmth of a classroom, and bring a bit of spring to any corner.

Insects

Quite a number of Moths are to be found in January. The teacher should supply herself with a good moth and butterfly book, so that she may identify them as she sees them. The Early Moth, the Winter Moth, the Herald, the Pale Brindled Beauty, and the Spring Usher all appear.

Few, if any, butterflies are to be seen. Those that may be discovered will be hibernating individuals, who only fly out on warm sunny days. The Peacock, Red Admiral, Brimstone, and Small Tortoise-Shell may be among these.

Sometimes a lone Bee may come buzzing round, looking for the not-yet-blooming crocuses. Occasionally a Lady-bird may also be found crawling down a twig or post—but January is not generous with insects. Most of them are hidden away waiting for warm days to come.

In the Pond

In a wintry January the ponds are frozen over and nothing can be seen of their inhabitants. But in a warm month Water-weed can be got (Duck-weed, Canadian Pondweed, Water-cress, Water-milfoil, or Water-starwort). Various Fish can be seen, and Water Boatmen and Water Scorpions are very much alive. Pond Snails may be had at any time from weedy ponds.

Animals

The first Bats may be seen flitting about for a short time on fine warm evenings. The great majority, however, are still asleep.

Unless the ground is frozen Earthworms can now be seen again at the surface. On warm nights they crawl right out of their burrows to seek food. If anyone approaches them they retire hurriedly, hissing as they do so.

Many British mammals may be seen, or their tracks in the snow identified (see Chapter on Snow-Tracks). The Squirrel comes out on a warm day to look for his nuts. The Rabbits and Hares are abroad. Moles are active unless the ground is frozen hard. Weasel and Stoat are out after Rats and Mice.

Birds

Our resident birds will of course be seen (see Chapter on Common Birds), and after their long silence it is pleasant to hear them again. Many of them begin to practise their spring-time songs, and the Missel-Thrush, the Song-Thrush, and the Blackbird may all be heard. On a stormy, windy day the Missel-Thrush sings joyously, perched on the topmost branches of a tree. For this reason he is called the Storm-Cock. The Robin, the Wren, the Skylark, and the Hedge-Sparrow sing too (see Chapter on Common Birds for differences between the Hedge-Sparrow and Common Sparrow). Towards the end of the month the volume of song increases, especially in the early morning, and the children should be told to listen for this.

Tell them also to watch for the Starling's beak to become a brighter yellow, and his feathers shinier. Get

them to listen to his delightful whistle and curious snapping, clucking noises as he sits on the chimney of the school. In this month also they may watch the Cock Sparrow's bib growing dark again.

London teachers, who see the Black-Headed Gulls along the river-side, will notice that they are becoming darker on the head, thus living up to their name in a more satisfactory manner.

Rooks begin to think about their nests, and in a fine January may be seen examining their old nests in the rookery, and pulling a few sticks about here and there.

FEBRUARY

The Weather

February may be frosty or mild, rainy or dry. Its name "Fill-Dyke" does not mean that it is a very rainy month, but that very often the melting snow fills the ditches (or dykes) with water. It is said that a mild January means very much colder weather in February and March, and the proverbs below will show how widespread this belief is.

Proverbs and Sayings

"On Candlemas Day (February 2nd) the badger peeps out of his earth. If the sun shines and the air is warm, he goes back again, for he knows that bitter weather is still in store. But if the snow lies deep upon the ground, he comes forth, for he knows that winter is nearly over."

"All the months in the year
Curse a fair Februeer."

"If Candlemas be fair and clear
There'll be two winters in one year."

"As far as the sun shines in on Candlemas
Day,
So far will the snow blow in before May."

Flowers

February has not many more flowers than those found in the list for January. Henbit may be discovered in waste places or in gardens. It is a small-flowered Dead-Nettle. Vernal Whitlow Grass may be found on old walls or warm banks. It is a very small plant with four-petalled, white flowers. Barren Strawberry also appears this month. It has small white flowers, and looks rather like a tiny strawberry plant.

Ivy berries may be plucked now. They are black, rather like boot-buttons, and are useful for decoration at this time of year.

In sheltered places the bright, polished cups of the Lesser Celandine may be seen. Snowdrops, although appearing in January, are at their best now, and may be found in most gardens. A pretty old name for them is "Fair Maids of February." Japonica is out on the warm walls of houses. The Crocuses, white, yellow, and mauve, are also out, making the beds very gay indeed.

Bulbs

The bulbs grown in school should now all be in flower, or should at any rate be showing colour.

Trees

It should be very easy now to find the red spikes of the seed-bearing flowers on the hazel twigs. The yellow catkins are full of powdery pollen. The children will love to shake them.

Catkins may also be found on the Birch tree and the Alder. The Elder sprouts out a few venturesome leaves and the "Pussy Palm" (the Sallow) begins, in a warm month, to open its

scaly brown buds, showing the soft grey fur inside. Chestnut buds are very fat and sticky.

Insects

There are very few insects about as yet. Any Butterflies seen will be those stated in January's list, that have been hibernating. Their wings will probably be torn and tattered, and rather dingy in colouring, for much of the powdery stuff (really minute scales) from the surface of their wings may have been rubbed off.

In a mild February the Bees will come out to seek the Crocuses. If the children have grown any in bowls, let them put them on the window-sill in the sun, and open the window a little. Very soon the Bees will find them, and the pleasant humming of their wings will delight the children, and make the summertime seem nearer.

More Lady-birds appear, and the Spider (not really an insect) sets to work again, weaving her beautiful web in the garden and along the hedgerow.

In the Pond

February is the month when many hibernating creatures awake, for they feel the warmth of the sun striking down to their hiding-places, and long to stretch themselves in its welcome rays. Frogs leave the mud where they have spent the winter, and Toads desert their winter quarters. All make their way to the nearest pond or stream, for the great urge of Spring is upon them. Their tailed cousin, the Newt, is also on the move to a suitable pond, for he, too, spawns in water.

January's list also applies to this month. Water-weed becomes greener,

and the impulse to grow becomes stronger.

Animals

As mentioned in the "Proverbs and Sayings," the Badger may be abroad this month. The Dormouse wakes up, the Hedgehog has a look round for beetles or grubs, the Blindworm, a little legless lizard, ventures out into the sunshine. Snails arouse themselves, and crawl out from their hiding-places. They are found by hungry thrushes, who smash the shells against a stone and eat the soft body inside.

More Bats appear and fly about in the twilight. Earthworms are much more active. Young Rabbits may be seen. Other animals mentioned in the list for January may also be seen.

Birds

Even if February is cold and frosty, the birds sing more and more. In a mild month the chorus swells week by week, and new voices are continually added. Those that sang in January sing even oftener in February, and their songs are more perfect. Any teacher who has not listened to the early chorus of the birds beginning as soon as day dawns, will be amazed at the volume of sound. She should try to pick out the different voices—a most fascinating task.

St. Valentine's Day (February 14) is supposed to be the day on which the birds choose their mates. The cocks show off their lovely plumage, or, if they are sober-hued, trill out their most beautiful songs. It is a great month for the birds.

The Yellow-hammer begins to sing his quaint song of "little-bit-of-bread-and-no-cheese." The gay Chaffinch

calls "Pink, Pink," and practises his merry rattle of a song. The Starling chatters all day long, and is proud of the purple green of his feathers. The tiny Golden-Crested Wren begins to sing again, and the Tits sound their pretty calls. The children will know these well, if the teacher has hung a coco-nut outside the window, for they hang on it and call loudly to one another. Sometimes they sit on a near-by tree and trill out their little song.

The Wood Pigeons can be heard cooing in the trees, and a very lovely sound it is. Children love to hear it. Rooks are busy with their nests, and so are their comrades, the Jackdaws. Song Thrushes and Missel Thrushes are building, and, in a very mild season, first clutches of eggs may be found.

MARCH

Weather

Keen winds, and often bitter cold when the wind blows from the east. "March many weathers" gives a clue to the variability of the month. When not wild with storm and wind, it may be sunny, warm, and spring-like. One day may be like Winter, with harsh snow-blizzards—the next may be mild and pleasant. •

Proverbs and Sayings

"If March comes in like a lion, it will go out like a lamb. If it comes in like a lamb, it will go out like a lion."

"The worst blast comes on the borrowing days" (i.e. the last three days of the month which were supposed to be taken from April).

"A peck of March dust is worth a king's ransom."

Flowers

Many new flowers are to be found in March. In woods, or damp places, will be found hosts of Wood Anemones (or "Wind-flowers"), Primroses, and Lesser Celandines. The Green and Fœtid Hellebores may also be found in woods. The Sweet Violet grows along moist banks, or raises its fragrant white or purple head in the woodlands.

Along the hedgerows will be seen the lovely Blackthorn (or Sloe) with its beautiful white blossom. Gorse blossoms freely, especially towards the end of the month. The little Coltsfoot opens its golden flowers along many a clayey bank. It is possible to see sheets of this lovely little flower from a railway train, for many of the clayey embankments are very suitable to its growth. The leaves appear later.

Ivy berries may still be found in great numbers.

Other plants flowering this month are the Ground Ivy, the Lesser Periwinkle, Spurge Laurel (in woods), Butcher's Broom, Golden Saxifrage, Butterbur, and Wild Daffodil. Besides these, there will be, of course, most of the plants put in the list for January and February—for example, the Daisy will be found in greater quantities, the Shepherd's Purse also, the Groundsel, and Chickweed, etc.

In the garden the Daffodils are opening. The early kinds dance in the keen winds of March, as yellow as the sunshine itself ("Daffodils that come before the swallow dares, and take the winds of March with beauty"). Crocuses are still gay. The white Arabis (Rock-Cress) is flowering and the mauve Aubretia.

All pot-grown bulbs should have

flowered by now. If fibre was used, it should be stored away for use again. The old bulbs may be put out into the garden, and allowed to grow there—they will not be of any use for forcing the next year.

Trees

A good many trees will be in flower. Notice the lovely red blossoms of the Elm—they are beautiful against a blue sky. The Wych Elm also blossoms. The Poplars hang out their catkins. The Willow, the Alder, the Yew, all may be seen in flower. Buds are swelling fast, especially those of the Horse-Chestnut. Those in the school-room should be opening and showing their warmly-packed little leaves.

Insects

Many Moths are to be seen, but not many more Butterflies than those already given. Honey Bees and Humble Bees are out, House Flies appear, Queen Wasps seek for a hole in which to start their nests, Lady-birds are on the wing. The little Earwig is seen again. The Slug seeks out tender young leaves to feed upon, and the Ants appear once more. Many other insects are out also, revelling in the sun.

Caterpillars may be found and collected for keeping in the classroom. A good moth and butterfly book will help in identifying these. Most children know the Woolly Bear (caterpillar of the lovely Tiger Moth). The larvæ of the Drinker Moth, Magpie Moth, and Small Copper Butterfly may also be found.

Eggs of Silkworms may be bought this month.

In the Pond

Frog-spawn and Toad-spawn may now be seen. The eggs of the Frog are in masses of jelly, floating at the surface, while the Toad's are in long strings of jelly, wound in and out between the stems of water-plants.

Northern counties may be late with the Frog- and Toad-spawn in cold seasons. In the south, in a warm month, the first Tadpoles may be found. Newts are in the pond also, and are fascinating creatures. Look for the amusing Whirligig Beetles on the pond's surface.

Animals

In this month the Hares begin their extraordinary antics which give rise to the saying "As mad as a March hare." Their sudden leaps and bounds into the air are most amusing to watch. Certainly a most comical courtship! The Rabbits act in an amusing manner, too, when the mood takes them. There are now plenty of young ones about.

The Sheep have their Lambs beside them in the emerald green fields. Chicks and Ducklings can be seen at every farm.

Many Bats are out, and may be seen in the twilight, flitting after winged insects. Snakes wake up and crawl from their winter quarters. Garden Tortoises open their sunken eyes and crawl heavily forth. Squirrels are lively. Mole-hills are in evidence, even if the Mole himself is invisible—though in southern counties he works all the year round, and his handiwork may be found even in early January.

The Hedgehog wakes up. He wanders out from the ditch where he slept the winter through and looks for

insects to eat. Practically all the hibernating creatures may be seen once more, unless the month is very severe.

Birds

The first Spring migrants come to us this month. The Wheatear, who loves open ground, is generally the first one to be noticed. He is due about the third week in the month, but may come earlier if the weather is mild. Others are the Chiff-chaff, the Wry-neck (or Cuckoo's Mate), the Willow Warbler, the Ring Ouzel, the Yellow Wagtail, and perhaps the earliest Sand Martins. The dates vary each year, and it is interesting to keep a record of the day on which the migrants are first seen in one's own district.

The Fieldfares and the Redwings, who came to us for the Winter, now depart northwards.

The chorus of song is still added to each week, and those birds named for the last two months have become more perfect in their songs. Pheasants crow in the woods, Linnets sing gaily, the Chiff-chaff utters the call from which he gets his name, the Woodpecker is heard, and the Willow Warbler sings his sweet little song. The Blackbird is at his best, and is perhaps the king of all the songsters. 'He sings very deliberately, as if he were consciously composing a melody and listening to it himself.

Birds are busy everywhere, seeking for nesting sites, and building nests. Some birds bring up two or three families every year. The familiar Robin nests this month, and for his eggs he likes to find something that once belonged to human beings—an old can or kettle, a cast-off boot or a saucepan.

Many eggs may be discovered, but

not taken unless the nest has been deserted. It is not wise to let children cluster continually round a nest found in the school garden, for the bird will probably desert her eggs in fright or annoyance.

The Sparrows start to build their untidy nests, and since they like to stuff them into the corner of the eaves, or the fork of a water-pipe, the children may be able to watch the building going on, and notice what material is being used.

Tits may build this month in the nesting-boxes provided in the school grounds. If the teacher notices these birds hanging about the boxes, she should keep the children away until the Tits have finally made up their minds to build there.

Rookeries are very lively now. With a pair of good field-glasses, the teacher can easily draw enough material from her observations to amuse her children very much.

APRIL

Weather

"Fair and fickle" April is a very beautiful month. Its transient showers, sudden sunshine, glowing rainbows, all make it delightful. It is often very warm, but may be cold and windy. It may take days from May, or a week from March.

Proverbs and Sayings

- "When April blows his horn,
It's good for both hay and corn."
- "A growing April and a dry May,
Are good for wheat but bad for hay."
- "A cold April
'The barn will fill."
- "April showers bring milk and meal."
- "If it thunders on All Fools' Day
It brings good crops of corn and hay."

Flowers

The flowers of April are almost too numerous to mention. Everywhere is carpeted with colour. The Marsh Marigolds cover the low-lying meadows. The Dog Violets are out in the woods and on the banks. Speedwells open their bright blue eyes in the corn-fields, and the Dead Nettles flower in fields and waste places. Cowslips nod on hillside slopes and cover sunny fields. Ground Ivy, Dove's Foot Crane's-bill, Greater Stitchwort, Lords and Ladies (a plant with many names—the Common Arum, the Wake Robin, the Cuckoo Pint), Common Vetch, Wood Sorrel, Lady's Smock, Goldilocks, Jack-by-the-hedge (Garlic Mustard), and Mouse-ear Chickweed may all be found. Early Bluebells may be seen towards the end of the month.

In the gardens many more flowers show themselves—Wallflowers, American Currant, late Daffodils, Forget-me-nots, Primroses, Polyanthus, Narcissus, and so on.

The seeds of annuals should be planted in the school garden at the end of this month.

Trees

There are many trees in flower this month. The children will know and love the golden "Palm," the male catkins of the Sallows. The female catkins are green and ragged looking. The Ash flowers now, and also the Aspen and the Beech. The Oak hangs out its little inconspicuous yellow-green tassels. The Larch is gay with rosy plumelets. The Yew, the Poplars, the Willows, the Hornbeam, and the Birch are also in flower.

Fruit trees are beginning to blossom. In a mild year, Pear, Plum, and Apple

may all be seen, and the Almond tree, which blossoms before its leaves appear, is a pretty sight to see.

Besides flowering, many trees are now beginning to leaf. Most of them unfold their tiny, tender leaves and the children will notice what a bright, fresh green they are. The Ash and Oak are often late, and the teacher will remind herself of the old saying :

" If the ash comes out before the oak,
The summer will be a regular soak,
If the oak comes out before the ash,
Then we shall only have a splash."

Insects

New Butterflies are now to be seen. Among these will be the Large White, the Small White, and the Green-Veined White. The lovely Orange-Tip, the Holly Blue, and the Small Copper will also probably be seen. Moths, too, are to be found in abundance, especially the Silver Y, very common in fields and easily recognised by its markings.

All kinds of Caterpillars are about, and some may be taken to the classroom for study. It is a great moment, as every keen teacher knows, when a chrysalis splits open and a perfectly new Butterfly or Moth crawls out. Such a moment of magic should be experienced by every child.

Spiders (not really insects, however), Flies of all kinds, Greenfly on the rose trees, Ants, Bees, Wasps, Beetles, Earwigs, Lady-birds, all can be found now, with many others.

Silkworm eggs may be bought this month.

In the Pond

The chief things to notice in the ponds are the Frog, Toad, and Newt

Tadpoles, which are now very lively. Some of each should be kept in the schoolroom so that the children may watch the different stages they go through. First they are all head and tail. Then tiny branching gills spring out from each side of the head. Then come the legs—hind ones first in the case of the Frog, front ones first in the case of the Toad and Newt. Then the tail of Frog or Toad Tadpole shortens and the creature becomes a typical member of its family, though very small. On a rainy day it leaves its home-pond, and goes off to find a "beat" of its own. The Newt Tadpoles do not lose their long tails, but retain them throughout life.

Much water-life may be observed. The various Water Beetles are very lively. Water Fleas may be caught in a net or jam-jar and carried off to the class aquarium. Caddis Grubs may be dipped up from the pond mud (curious soft-bodied grubs which make themselves a hard casing of pebbles, bits of reed, broken pieces of snail shell, etc.). The teacher may carefully remove the grub from its case, and place it in water, into which she has already put materials for the creature to build itself another case. It is interesting to keep two or three, giving each one different materials—small glass beads is a good idea for one grub, and the resulting case is most curious.

Animals

All the wild animals of the countryside are busy and active, courting one another, seeking for nesting-sites, building, or burrowing. The Squirrel makes his wonderful nest or drey now in the trees. Many young animals may be seen, though the month of May is the

most lavish in young life. More Snakes are about. We have three kinds of Snakes, only one of which is poisonous. The Grass Snake and the Smooth Snake are harmless. The Adder or Viper can give a poisonous bite.

The Common Lizard may be found this month. He loves sunny banks or hillsides. If the teacher wishes to catch one for a vivarium, she must take him by the shoulders, for lizards caught by the tail escape easily by breaking it off and leaving it in the would-be captor's hand.

The Lambs are at their liveliest now and children love to see them frisking and gambolling. The farmyard is full of young things, and those teachers who can do so will find it delightful to take their children to visit a farm either this month or the next.

Birds

Most of the summer migrants arrive this month. They will come more or less in the following order: the Nightingale, the Blackcap, the Swallow, the Cuckoo, the House Martin, the Whinchat, the Whitethroat, the Redstart, the Sedge Warbler, the Reed Warbler, the Wood Warbler, the Corn-crake, the Turtle Dove, the Garden Warbler, the Nightjar, the Swift.

The last of our Winter migrants depart.

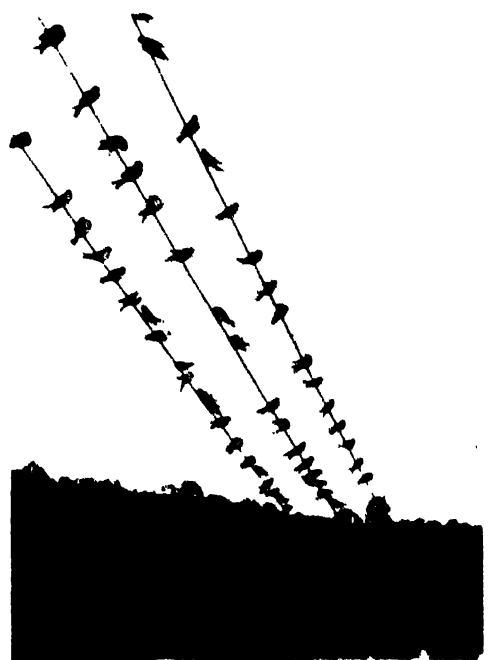
The Cuckoo is one of the most interesting of the Summer migrants, because of his curious life-story. All children know and welcome his familiar call. (See Chapter on Common Birds for short life-story.)

There is much singing now. The Nightingale is heard at night, and sings very often in the daytime, too. His voice is not often detected then,



Oliver P.

**SEDGE-WARBLER FEEDING THE YOUNG
CUCKOO SHE HAS REARED.**
Her foster child is already much larger than her self.



Topical Po

**SWALLOWS ASSEMBLING READY FOR
DEPARTURE.**



Albert H. Willard

SAND-MARTINS' NESTS IN A SANDY BANK.



Albert H. Willard

A WATER-HEN'S NEST AND EGGS.

however, because his lovely song is lost among scores of others.

Nests and eggs are everywhere. Young birds, too, may be seen, especially young Robins and Thrushes. The teacher will notice that the youngsters do not always show the same colouring as their parents—young Robins, for instance, do not at first have red breasts.

MAY

Weather

One of the loveliest months of the year. Warm and sunny, with everything bursting into life. Nevertheless, as the proverbs tell us, it may be a treacherous month, with cold winds and raw days.

Proverbs and Sayings

" Button to chin till May be in,
Ne'er cast a clout till May be out."

" March will search, April will try,
May will tell if you live or die."

" In April don't put off a thread, in
May put on double."

" March winds and April showers
Bring forth May flowers."

Flowers

The countryside everywhere is beautiful now, for hedges, fields, woods, and gardens are all brilliant with colour. The flowers now blossoming are almost too great in number to mention.

The Bluebells (not the Bluebell of Scotland, which is our Harebell) or Wild Hyacinths are carpeting the woods with blue. Perhaps no other British flower is so beautiful when massed together. A walk to the nearest Bluebell wood with the children should be attempted by every teacher.

No more Bluebells should be gathered than are needed for the vases, and none, of course, should be left to die in the road, dropped by some child tired of its load.

Cowslips are dancing and nodding on the hillsides and in the fields, far more numerous than they were in April. Primroses are still in flower by the stream and in the woods. Golden Buttercups are in the meadows in their thousands, and in a hundred schools the question is being asked " Do you like butter ? " A walk to a Buttercup field should be attempted either this month or next.

White and Red Clover can now be found. Many Vetches flower, and the children will see in them miniature Sweet Peas. The Scarlet Pimpernel, the little weather-glass of the fields, grows by the roadside along with Tormentil, Yarrow, Fumitory, Pansy or Heartsease (a very small edition when compared with the garden Pansy), Red Campion, Mouse-ear Chickweed, Goosegrass (Cleavers) that catches hold of us as we pass, Plantains, the common Daisy, and many, many others.

In the hedges grows the Old Man's Beard. It has many names—Traveler's Joy, Wild Clematis, Virgin's Bower. The children will know it best by its name of Old Man's Beard, for they will have seen its fluffy, grey-tufted seeds in the Autumn and Winter. The Black and White Bryony spread over the hedge, and open to the sun. The Black Bryony has heart-shaped leaves, and the White has five-lobed leaves.

The Yellow Broom flowers this month, and stands out bravely on hillsides and commons. It is a beautiful plant. Its prickly cousin, the Gorse,

is still in flower, and in a backward season may take April's glory into May, covering moors and heaths in a blaze of gold. It is a sight worth seeing.

By streams and ponds stands the Yellow Iris, with the Brooklime, the Forget-me-not, the Common Comfrey, and the Water Aven. Water Lilies are beginning to throw up their buds. Watercress flowers, and so does the Water Crowfoot and Water Violet.

Lining the cliffs by the sea are the many blossoms of the little pink Thrift, so gay and sturdy. Like all flowers well loved, it has many names—Sea Pink, Sea Gilliflower, and Ladies' Cushions are some of them. The Wild Cabbage, from which originated all the many garden kinds, can be found by the seashore.

Blue Bugle, Ladies' Smock, Jack-by-the-hedge, Shepherd's Purse, Dog Violet, Saxifrage, Groundsel, Dandelion, Speedwell, Ground Ivy, Dead Nettle, Wood Spurge, Lords and Ladies, are other flowers likely to be found in this abundant month. Bilberry also blossoms now.

Those teachers who wish to study our various Wild Orchids will find this a good month to do so. The following kinds are now in bloom: Early Purple Orchis in meadows and woods; Green-Winged Orchis on commons and in meadows; Monkey Orchis, Spider Orchis, and Man Orchis on chalky hills (rather rare, however); Fly Orchis in chalky woods; Bird's Nest Orchis in woods; and the rare Red Helleborine Orchis in woods on high hills or mountains. Unless found in great profusion our Wild Orchids should not be gathered.

In our gardens are a host of blossoms.

The May-flowering Tulips are very gay, and the Wallflowers and Forget-me-nots flower freely. The Syringa, or Mock Orange to give it its correct name, is out. London Pride, that easily grown plant, flowers now, or even earlier in a good season. The lovely Columbine (*Aquilegia*) puts forth its fairy-like flowers. The teacher should try to get a few of these to show to the children. They never fail to appeal to them.

Let the children notice how very long the leaves of Hyacinth, Crocus, Snowdrop, and Daffodil bulbs have become. The explanation of this and similar things will be given to them in the Junior School. It is sufficient that they notice and wonder now. Only to very bright children should any comments be made or any explanation given.

Seeds of Runner Beans may be planted about the middle of the month.

Trees

The teacher will note the unfolding leaf-buds as well as the flowers, showy or inconspicuous, of the trees in May. The countryside is at its best this month as far as trees are concerned, for so many of them bear masses of showy blossoms. The Horse Chestnut carries its beautiful spires proudly, the Laburnum looks as if it is raining gold in the garden, the Lilac brings its fragrance to us, and the Mountain Ash (or Rowan) holds up its white, curious-smelling blossoms.

In the lanes we see the lovely Hawthorn in blossom, the true flower of May-time. It spreads along the hedges in snowy masses, and sends out a most delicious fragrance. The children will notice the petal carpet

spread on the grass below, and will say that it is like the confetti they have seen used at weddings. The pretty Guelder Rose is in flower, too, and the Wild Cherry and Crab Apple.

The Sycamore (or Great Maple), Hornbeam, Scots Fir or Pine, Holly, and Spindle Tree all flower now. This month will finally decide the race between the Oak and the Ash. (See rhyme given last month.) The Plane tree (Oriental Plane) blossoms now. Its fruits are probably better known than its flowers—they are the round "button balls" so familiar to children. The Ash, Oak, Beech, Poplar, and Willows may all be seen in flower this month.

Insects

Caterpillars, Moths, and Butterflies are seen everywhere now. The Little Blue, the beautiful Scarlet Admiral, the Large and Small White, the Dingy and Grizzled Skipper, the Wood White, the Pearl-bordered Fritillary, and Small Heath may all be seen. Of Moths, the Emperor Moth, the Cinnabar, and various beautiful Hawk Moths may be found, as well as many others.

The Cockchafer or May Bug appears now. It has spent three years underground before coming out into the air. Lady-birds with yellow spots or red may be found everywhere. May Flies dance over the water. Their life is short—only a day or two at most—then they drop their eggs into the water and die. They can easily be recognised by the three long bristles they have at the end of their body.

Bees are very busy taking honey and pollen from flowers. They begin to swarm this month. (See July's insect list for swarming rhyme.) Ants race

about here and there. Children love to watch these ingenious little creatures. The other insects listed for last month may also be found in this, in greater numbers and varieties.

In the Pond

Tadpoles are getting bigger, and now show external gills. Sticklebacks and Minnows may be caught for the aquarium. Whirligig Beetles, Black Water Beetles, and Water Fleas may also be found.

Animals

The Sheep are sheared this month. See that the children notice the Sheep before and after shearing.

Squirrels may still be building, but some may have mated and have new-born families. Children never fail to be charmed by the young of our wild animals. Stoats, Weasels, Moles, and Shrews all have families now. These youngsters are fascinating to watch, for they are very playful.

Birds

This is the great nesting month of the birds. Nearly every bird is either building, sitting, or feeding young. The children will notice many birds seeking for Green Fly on the rose trees, and will see excited Sparrows pouncing on Caterpillars—for even seed-eating birds feed their young on insects in the Spring, much to the benefit of the garden. Starlings with Worms in their bills, Robins with Grubs, and Tits with tiny Caterpillars held tightly in their beaks may often be seen.

Sparrows will fight over the feathers in the hen yard, prizing them for nest-lining. Many birds will visit the posts on which cows and horses rub them-

selves, and proudly carry away the few hairs there. The children will like to hang up a "lucky-bag" for the birds (see Chapter on Nesting Boxes and Material).

The last of the summer migrants arrive this month. The Swift, the Nightjar, the Red-backed Shrike, the Spotted and Pied Fly-catchers, and the Marsh Warbler may be among these, although in forward seasons they may all be here in April.

There is still a great volume of song. The Cuckoo especially calls continually. ("In May, I sing all day".) It is pleasant to hear the twittering of the Swallows. The Nightingale still sings beautifully. Not until the end of the month is there any falling off in the song of the birds. Then one after another the various kinds sing less. The Missel Thrush, one of the first to sing, is the first to become silent.

JUNE

Weather

June is a wonderful month. The trees are green and leafy, the sky is blue, the sun is warm. The air is soft as silk, and the countryside lies smiling in the pleasant warmth. There is little wind. Sometimes June is colder than it should be, or the rain comes too often—but usually it is a beautiful time of year with delightful weather. After the twenty-second, the days begin to get shorter.

Proverbs and Sayings

"Fine weather in June sets corn in tune."

"A good leak in June sets all things in tune."

(These two seeming opposites may be reconciled. Fine weather, broken

once or twice by a good downpour, is good for both corn and hay.)

Flowers

Every place is now covered with its own characteristic flora. June's list of flowers is even longer than May's. Most of those given for last month may be found this month, too, but there are very many new faces to see.

This is the month of Roses, both in the open countryside and in the garden. The lovely Wild Roses are in bloom along the hedges, and fill the air with their deliciously sweet fragrance. We have more than a dozen kinds of Wild Rose. Those we know the best are the Dog Rose, the Sweet Briar, and the Burnet or Scotch Rose. Perhaps the best loved are the pink and white flowers of the Dog Rose.

In the woods the graceful Foxglove raises its lovely purple-red spire of drooping blossoms. The children will like to hear that its name is really "Folk's Glove" (i.e. Fairy's Glove). The Great Mullein with its queer woolly leaves can now be found. Two other quaint names for it are High Taper, because it grows so high, and Adam's Flannel, because of its woolly leaves.

Buttercups still star the meadows with gold, and the Dog Daisies (Moon or Ox-Eye Daisies) make silvery patches among them. The red Sorrel sends up its tall spires here and there. Ragged Robin stands in the hedges with the Red Campion. Thistles stand tall and prickly in waste places, the Meadow-sweet graces the green field, and the Dock is in flower. The Cow Parsnip or Hogweed, one of the largest of our umbelliferous plants, flowers also, and the Wild Carrot too. Common Chamo-

mile, smelling of fresh apples, is about, and the strong-smelling Stinking Chamomile as well. Both of these have very much divided leaves, which distinguishes them from the Dog Daisies.

The Corn Cockle and Marigold stand together in the fields and Scarlet Poppies dance by the wayside. Mallow, Meadow Crane's-bill, Common Agrimony, Rest Harrow, Goat's Beard (or Jack-go-to-bed-at-noon), many Bedstraws, the Greater Celandine, the Field Convolvulus, the Ragwort, Sheep's Bit, and Wild Thyme are other of the many, many plants that may be found by children and teacher in their June wanderings.

Then there are the Grasses. Every child loves the quaint Tottering Grass. Its other names are Quaking Grass or Doddering Grass. The children may know some of the Cat's-tail and Fox-tail Grasses, too. The grass that makes hay smell so sweet is the Sweet Vernal Grass. This the teacher will be interested to find. There are dozens of different grasses, each beautiful in its own way.

By ponds may be found the Purple Loosestrife and rosy Willowherb, the Hemp Agrimony, and the Great Water Plantain. Standing in the water is the beautiful Flowering Rush, while the lovely White or Yellow Water Lily rests its waxen caps on the surface. The Canadian Pondweed flowers now, sending long strings up to the top of the water, at the end of which are curious little waxy-looking blossoms.

Look for the Yellow Horned Poppy by the seashore. The Sea Bindweed is covered with rosy bells, and grows by sending its stems creeping beneath the sand.

One of the features of the woods now is the well-grown Bracken. Perhaps the children will have noticed the pretty way in which the fronds were rolled up before opening. Now they can see the fronds widespread on the high, sturdy stem. They will like to hear the old rhyme :

" When the fern's as high as a spoon
You may sleep an hour at noon.
When the fern's as high as a ladle
You may sleep as long as you're able."

(i.e. sleep in the woods or on the hillside in the sun without fear of catching cold.)

It is still a good time of year to seek for Wild Orchids. Those given last month may be found now, as well as the following : Spotted Orchis in meadows and woods ; Marsh Orchis in damp places ; Small and Large Butterfly Orchises in moist woods ; Dwarf Orchis on chalky hills ; Fragrant Orchis on chalky pasture-land ; Bee Orchis on chalky hills and pasture-land ; White Helleborine Orchis in chalky woods ; Twayblade Orchis in damp woods ; and Frog Orchis on pasture-land.

In the garden many flowers are out, including some that the children planted as seeds. The little Virginian Stock makes the borders gay, and the Candy-tuft grows in bold patches of colour. Lupins raise their tall spikes of blue, yellow, pink, and white, and the first Sweet Peas begin to bloom. Roses put forth their buds and open them wide to the warm sun. Pansies and Violas are full of flower.

• This is the month when seeds of Biennials should be sown, so that the garden may have plenty of flowers next year. Sow Wallflowers, Canter-

bury Bells, Sweet Williams, Foxgloves, Hollyhocks, Honesty, Snapdragons, Aubretia, Yellow Alyssum, and others.

It is interesting to set the children this month to find as many Climbing Plants as they can. They will notice the many different ways that the various plants have for helping themselves to climb. Do not attempt to tabulate them. Let the plants be admired for their "cleverness" and examined with interest and wonder. Let the thorns of the Dog Rose be felt to see how strong they are. Let the children tug gently at the tight-gripping "fingers" of the Virginia Creeper. Let them gently untwine the Runner Bean climbers and put them back again up the stick.

The following are some of the climbers that may be noticed this month: Dog Rose, Virginia Creeper, Runner Bean, Ivy, Honeysuckle, Blackberry, Convolvulus, Vine, Black Bryony, White Bryony, Hop, Clematis, Vetches, Pea, Cleavers, Rambler Rose, and Nasturtium.

Trees

The trees are losing their fresh green, and appear darker in colour now. The following may still be in flower, or may begin to flower, this month: the Holly, Large-Leaved Lime, Sycamore (or Great Maple), the Common or Field Maple, Juniper, Hawthorn, Elder, Mountain Ash (or Rowan), Scots Fir, Wayfaring Tree, and Guelder Rose.

Look for *Rhytisma* (red fruiting bodies) on the leaves of the Sycamore.

Insects

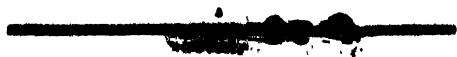
Myriads of insects are abroad in June. It is a good Butterfly and Moth month, and many beautiful species

can be seen. Look for the following (some are rather localised): the Common Blue, the Small Tortoiseshell, the Large Heath, the Ringlet, the White Admiral, the Scarlet Admiral, the Silver-washed Fritillary, the Large Skipper, the Green Hairstreak, and the Black Hairstreak. Of the Moths the following may be seen: most of the Hawk Moths, including the Large Elephant Hawk, the Privet Hawk, the Lime Hawk, the Poplar Hawk, and the Eyed Hawk; the pretty Green Forester, the Oak Eggar, the Brimstone, the Green Carpet, the Lackey, the Buff-Tip, the Yellow Underwing, the White Ermine, the Yellow Shell, the Scarlet Tiger, the Wood Tiger, and the Buff Tiger. (The *Garden Tiger* Moth, whose "woolly bear" caterpillars the children may be keeping in the classroom, does not appear till July.)

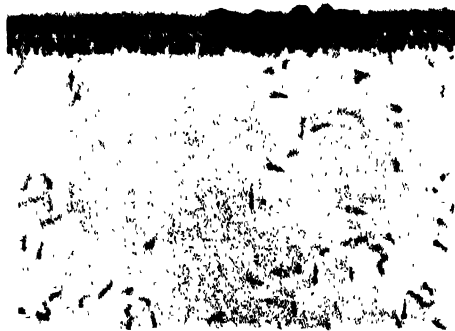
Some of the early Dragon Flies may be seen. The children will probably liken them to small aeroplanes. The grub spends its life in the pond. Then one day it climbs out of the water, splits its skin, and appears as a marvellous gleaming-winged Dragon Fly.

May Flies are still about in even greater numbers than they were in May. The teacher should note their curious dance over the water. Midges are out also, much to everyone's annoyance. The Daddy-Long-Legs appear for the first time this year. Stag Beetles are out in the evening time. Wasps appear in greater numbers.

The Grasshopper chirps merrily by the wayside and in the fields. The Rose Chafer, a bright green beetle, may be seen. Lady-birds lay their eggs



EGG RAFTS OF GNAT WITH LARVAE
HATCHING OUT.



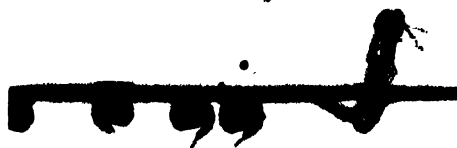
SIX HOURS LATER ALL HAVE HATCHED.



FOUR DAYS LATER THE LARVAE ARE
HALF-GROWN.



THE FULL-GROWN LARVAE MOULT AND
CHANGE INTO PUPAE.



A GNAT EMERGING FROM THE PUPA-CASE.



Photos J. J. Ward.
READY TO LEAVE THE WATER FOR THE AIR.

on the plants infested by Green Fly. The grubs that hatch from them will feed greedily on the blight.

In garden and field may be found the curious white froth called Cuckoo Spit. This is the work of the Frog Hopper grub. The froth it exudes protects its body from the hot rays of the sun. If the froth is scraped away the little green creature inside will be seen. It eventually becomes the funny brown Frog Hopper insect which when caught and touched leaps off our hands like a tiny frog.

Bees swarm now and those who keep hives are on the watch for the loud high humming that betokens a swarming. The children will like to know the old rhyme :

" A swarm of bees in May
Is worth a load of hay.
A swarm of bees in June
Is worth a silver spoon.
A swarm of bees in July
Is barely worth a fly ! "

In the Pond

Look for the egg-rafts, the larvæ, and pupæ of the Gnat. They can be most easily seen in a rain-butt or greenhouse tank. Some may be collected for the aquarium. The eggs are stuck together in a raft. When hatching, the bottom lids of the eggs fly open and the larvæ come out. They are very lively, and may be seen wriggling about swiftly in the water. Sometimes they hang themselves up to the film on the water by their tails. They take in air whilst doing this. Next they change into pupæ, and this time hang themselves up by their heads. Finally, they rise right up to the surface, the skin splits and forms a little boat out of which the winged

Gnat, a perfectly formed insect, climbs. After its wings are dried it goes off into the air. It is the female that makes the high whining noise and that bites us. The male does neither.

Whirligig Beetles, Pond Skaters, Water Spiders, Water Fleas, large Tadpoles (at beginning of month), and tiny Frogs (at end of month), may be found. Many Water Snails may be collected, and the children will be delighted to see their eggs laid in jelly on the glass side of the aquarium.

As mentioned before, the Canadian Pondweed flowers now as well as other water plants.

Animals

The young of mammals may still be found, especially those of Voles, Rats, and Mice. The Hedgehog begins to produce her quaint-looking youngsters. The Weasel and Stoat take theirs out hunting. It is not an uncommon sight to see a mother weasel glide across the road followed by all her youngsters, running tail to nose in a long line.

Birds

Bird song is diminishing very much. The greatest loss of all is the Nightingale's lovely song. It no longer sings its exquisite melody, but utters harsh croaks. The Cuckoo does not call so continually and his notes change (" In June, I change my tune "). The Robin is not heard so often, nor the Whinchat.

One of our latest migrants, the Nightjar, is now at its best as regards voice. It makes a peculiar churring, jarring sound which can be heard far into the night, for it hunts nocturnal insects.

Many birds are still nesting, especially those which, like the Sparrows and

Robins, bring up two or three families in a season; a good many species, however, have thrown off domestic cares, and are beginning to moult.

All kinds of young birds are about. Their piercing cries, when accompanied by their parents, may be heard all day long. The children will love to see these youngsters follow the old birds, and with wide-open beak ask for food.

JULY

Weather

The days are getting shorter, but the heat is increasing. The earth is full of accumulated warmth from the sunshine of the last few weeks. Thunderstorms may be expected with a welcome downpour of rain, bringing moisture to the parched countryside.

St. Swithin's Day (July 15th) comes this month, the day which decides the fate of the summer—either wet or dry! (See below for rhyme.)

Proverbs and Sayings

"St. Swithin's Day if thou be fair
'Twill rain for forty days no mair,
St. Swithin's day if thou dost rain
For forty days it will remain."

"If the first of July be rainy weather,
'Twill rain more or less for four weeks
together."

Flowers

There are about seven hundred plants in flower now, so that it may well be seen that July is rich in flora. It is impossible to mention all. Many of those listed in the previous months are also to be found in July.

One of the glories of the midsummer months is the Heather or Ling, and the various Heaths that grow in great stretches over the commons, moors,

and hillsides. Bees love these moorland plants, and even when their hives are far away from the commons, they will fly for miles there and back to get the honey and store it in the hive-cells.

In the hedges and woods are two favourites, the Honeysuckle and the Bramble. The Honeysuckle we love because of its delicious scent, and the Bramble is beloved by the children because of the juicy berries it bestows upon them later. It flowers during this month and the two following. Sprays should be plucked for the schoolroom. Later on in the year other sprays may be gathered, but this time there will be berries instead of flowers, and the leaves will be turning colour.

Of the many flowers to be found in July the following are among the most common: Buttercup, Poppy, Wild Pansy, Milkwort, Bladder Campion, Red Campion, White Campion, Mallow, Herb Robert, Crane's-bills (various kinds), Wood Sorrel, Rest-harrow, Red Clover, Vetch and Vetchling (various kinds), Bird's Foot Trefoil, Meadow-sweet, Herb Bennet, Tormental, Cinquefoil, Silverweed, Pennywort, Sundew, various Willowherbs, Enchanter's Nightshade, Wild Celery, Samphire, Fool's Parsley, Wild Carrot, Wild Parsnip, Field Madder, Bedstraws, Cat's Valerian, Daisy, Mayweed, Yarrow, Marigold, Knapweed, Ragwort, Thistles, Hawkbit, Dandelion, Yellow Goat's-beard, Crowberry, Cranberry, Pimpernel, Bugloss, Forget-me-not, Bindweed, Henbane, Plantains, Speedwells, Brooklime, Wild Thyme, White Dead Nettle, various Docks and Sorrels, Nettle, Stonecrops, Common Melilot, Wormwood, Self-Heal, Woundwort, Golden Rod, Yellow Toadflax,



BRITISH WILD FLOWERS

1. *Primula vulgaris*
2. *Primula veris*
3. *Primula elatior*
4. *Primula acaulis*
5. *Primula farinosa*
6. *Primula aurantiaca*
7. *Primula hibernica*
8. *Primula officinalis*
9. *Primula montana*
10. *Primula veris*
11. *Primula vulgaris*
12. *Primula elatior*

1. *Primula vulgaris*
2. *Primula veris*
3. *Primula elatior*
4. *Primula acaulis*
5. *Primula farinosa*
6. *Primula aurantiaca*
7. *Primula hibernica*
8. *Primula officinalis*
9. *Primula montana*
10. *Primula veris*
11. *Primula vulgaris*
12. *Primula elatior*

Hawkweed, Hemp-Nettle, Sneezewort Teazle, Wild Angelica, Catmint, Nipplewort, Burdock, Winter-Green, Hound's Tongue, Succory, Centaury, St. John's Wort (very showy, and many interesting sorts), Harebell, Salad Burnet, Hop Dodder, Field Scabious, Sheep's Bit Persicaria, Meadow Rue.

This seems a formidable collection but it does not take the half in, for July's flowers are numberless. The list will serve to remind the busy teacher what may be found, however and may induce her to walk abroad whilst the countryside is so lavish with its flora.

In or by the water may be found still more flowers. There will be the Water Milfoil, Water Lobelia, Water Soldier, Arrow-head (the reason for its name is seen in the shape of its leaves), Water Dropwort, Water Parsley, Bulrush, Great and Lesser Reed-mace, Great Yellow Loosestrife, Bog Asphodel, Bog Pimpernel, and Yellow Flag.

By the sea may be found Yellow Horned Poppy, Sea Purslane, Thrift (Sea Pink), Sea Bindweed, Sea Rocket, Wild Cabbage, Samphire, Sea Milkwort, Sea Plantain, and Saltwort.

Many Orchids may be found this month, but, because of their rarity should on no account be gathered. The Bird's Nest Orchis, the Butterfly Orchis, the Frog Orchis, the Bee Orchis are among those that may be discovered.

In the garden is a host of gay flowers. Mignonette, Virginia Stock, Candytuft, Shirley Poppies, Canterbury Bells, Clarkia, Eschscholtzia, Godetia, Annual Sunflower, Evening Primrose, Periwinkle, Everlasting Pea, Catmint, Roses, and very many others. Prive

also flowers now. This is the month when the children see the results of their labours in the garden.

If Iris and Gladiolus Bulbs have been planted, they will now be in flower.

Trees

The Common Lime flowers this month, and the Large-Leaved Lime is still in flower at the beginning. The Sweet Chestnut blossoms now, or earlier in warm seasons. The Guelder Rose and Holly are still in flower.

Let the children stand underneath a Lime tree and listen to the hundreds of bees murmuring in the blossoms. It is a typical summer sound, and one most delightful to hear. If possible let them visit the tree after a shower of rain, and smell the delicious fragrance that drenches the air around.

The trees are very lovely now. The Elm stands tall and shady, the Beech is beautiful in its grace, the Oak is sturdy and strong, and the Silver Birch is full of charm. Let the children stand underneath a well-grown tree and look upwards into the lush greenery.

Insects

Many new insects are to be found, as well as most of those given in the list for June. Butterflies are everywhere. The Meadow Brown is very common, and so are the Large Heaths and many of the Blues. The lovely Purple Emperor is on the wing, but as it likes the tops of oak trees it is not seen so often as other kinds. Many of the pretty Fritillaries are to be found and the lovely Painted Ladies are common. The Comma Butterfly has rusty red wings indented all round, and owes its name to the comma-like

mark on its lower wings. The Ringlet may often be seen fluttering by us in the fields and we see the Grayling Butterfly by the sea.

It is interesting to note that the Painted Ladies are common all over the world, with the exception of South America.

There are hundreds of Moths flying at night and a few may be seen by day. The Burnet and the Cinnabar both fly by day. The Burnet may be seen this month, and the Cinnabar's caterpillars, with their alternating rings of black and orange, may be found on the Ragwort. The Garden Tiger comes flying in at our windows at night-time. It is a beautiful Moth, and one that the children may see coming out of the chrysalis, if they have kept any "woolly bear" caterpillars in the classroom.

The large Old Lady Moth, clad in sober brown, is often seen. The pretty Swallow Tail with its citron-yellow wings flies here and there. The Magpie, the Yellow Underwings, the dainty Large Emerald, the Goat Moth, the Wood Leopard, the Willow Beauty, the Tree Lackey (whose eggs we often find ringed round the twigs of our fruit trees), the Ghost, and the Swift Moths are all out in the evening time, and may come fluttering in to our lamp at night, enabling us to study their colours and shapes, and to find their names in the reference book.

The Drinker Moth flies in the fields. Its curious name is due to the fact that the caterpillar drinks the dew-drops. The Eyed Hawk Moth and Puss Moth may both be found.

The Grasshoppers are noisier than ever in the fields, and at night we may see the tiny glimmering lights of the little Glow-worm, which is really a soft-

skinned beetle. These small creatures are fascinating to children.

There are many Beetles to be seen. Most children know the Devil's Coach Horse, which opens its jaws and cocks up its tail when frightened. The coppery black Wood Tiger hurries along the ground, and the little Green Tiger gleams as it runs along in the bright sunshine. Both the Bombardier Beetle and the Violet Ground Beetle may be found. They protect themselves from their foes by suddenly ejecting a caustic fluid.

Winged Ants now appear, and Bees are busier than ever, especially, as mentioned before, in the sweet-smelling Limes and in the Heather. Wasps visit us when we have our tea out-of-doors, and make themselves a nuisance. They come indoors, too, and often catch the House Flies crawling up the window panes. They nip off their wings and carry them to their nests to feed the young grubs there.

The Leaf-cutter Bee may be watched at work this month. She visits rose trees and neatly cuts a piece of leaf out about as large as a sixpence. This she carries off. Soon she is back again and cuts out another piece of leaf. She makes her nest with these. It is interesting to watch her at her work.

In the Pond

July's list is the same as June's. The tiny Frogs, almost perfectly formed now, are leaving the water in increasing numbers. A wet day is the signal for them to leave their first home, for then the roads, fields, and ditches are moist and pleasant to the tiny Frogs whose life has hitherto been spent in water. Each seeks a place for itself in some damp, shady spot and there feeds upon

the insects it can catch. Not until these Frogs are three to five years old are they fully grown.

Country folk often say that "it has been raining frogs!" when they see so many of the little creatures everywhere after a shower. In the olden days showers of frogs were really believed in, but the reason for their great numbers after rain is really quite simple.

Dragon Flies may be seen hovering over ponds and streams. They neither bite nor sting, despite what many old country folk say. They catch and eat small insects.

Animals

There are many, many animals about this month, for the animal world has been greatly increased by all the new-born babies. It is impossible to take a walk into the country without seeing animals of some kind—a peeping Squirrel, a scurrying Mouse, Rabbits, Hares, a prowling Fox, and so on.

At night the Hedgehogs are out after Beetles. The Weasels and Stoats go hunting. The Bats fly in increasing numbers, and there are several kinds about. They are very quaint creatures, and if possible one should be caught and examined closely. It will be seen that its wings are quite different from those of birds. They consist simply of skin spread over the much-elongated fingers of the hands. The thumb forms a claw, and is used by the Bat in climbing. The Bat's body is mouse-like in appearance, and many people give it the pretty name of Flittermouse. When resting, it hangs itself upside down, and wraps its wings around its body.

The young are born this month.

Each tiny Bat clings tightly to its mother's fur, and when she goes out hunting, she takes it with her. It remains with her until it can fly and support itself.

One of the prettiest things in the animal world now is the wonderful nest of the tiny Harvest Mouse. It is "most artificially (i.e. skilfully) platted, and composed of the blades of wheat; perfectly round and about the size of a cricket ball, with the aperture so ingeniously closed that there is no discovering to what part it belongs" (Gilbert White).

The nest is hung high up amongst the ears of corn. Inside it lives a family of four to eight furry youngsters and the mother herself. She is only 2½ inches long with a tail almost as long as her body. The children will be delighted to hear about one of these wonderful little nurseries, if anyone is lucky enough to spy it in the fields, and bring the news to school.

Birds

The Cuckoo's voice is very rarely heard now. Many of the old birds are thinking of leaving us already, and by the end of the month some of them may have gone back south ("In July away I fly").

The woods and fields, hills and gardens, are very silent now, for one after another more and more birds fall silent. The Blackbirds and Thrushes sing no more, and the Chaffinch's pretty rattle of a song is gone. The Garden Warbler's voice is missing, and the Willow Wren is seldom heard.

The Yellow-hammer still gives us his simple song, however, and may be heard asking for bread and no cheese in the hedgerows. The Hedge Sparrow

sings his little refrain, too ; and in every garden and field the young birds call and chatter, twitter and chirp. The children will not fail to notice the shrill, insistent call of the Sparrow fledglings.

AUGUST

Weather

August is a month that may partake of the heat and blaze of Summer, or may share in the oncoming chill of Autumn. The days are getting noticeably shorter, and the nights are chillier, especially towards the end of the month. Although the countryside is still practically in the height of Summer, signs are not wanting of the approach of Autumn.

Proverbs and Sayings

" St. Bartholomew
Brings the cold dew."

(St. Bartholomew's Day is August 24th.)

Flowers

The Corn ripens this month, and stands high and golden waiting for the reaper.

Most of the plants given for July may still be found this month. The Autumnal Hawk-bit is out and the Common Autumn Gentian. White and Red Goosefoot are in flower, and grow in spikes rather like Sorrel. The flowers are small and greenish. The Tansy, with its bright yellow, button-like flowers, is in blossom, and can easily be found. Glaswort, several Mints, Soapwort, and Common Lady's Tresses are also in flower.

Harebells, Ragwort, Poppies, Cam-pions are all very numerous now.

Mugwort, Knapweed, Wild Teazel, Wormwood, the Carlisle Thistle, Yellow Fleabane, and Sneezewort can also be found in great numbers. The Purple Loosestrife, a handsome plant, stands by the side of streams, or on marshy land.

One of the prettiest of August flowers is the Common Grass of Parnassus. It has solitary, creamy-white blossoms delicately veined with green.

The seashore and salt-marsh now support a most interesting flora. Many plants may be found there, some of which were mentioned last month. Among them will be the Sea Campion, Sea Spurge, Sea Purslane, Marsh Mallow, Sea Lavender, Sea Milkwort, Purple Sea Rocket, Sea Pink (Thrift), Samphire, and Sea Holly.

Seaweeds

It may perhaps be best to mention the commoner kinds of Seaweeds this month. The teacher will probably be visiting the sea, and some of her children will possibly go away, too, bringing back with them various Seaweeds, especially the long ribbon-like kind which they will use for foretelling the weather.

This grows in deep water, but is often torn up and tossed to shore. Children love it because it is so like ribbon, and is very shiny and long. The fronds have the curious name of Tangles, and there are many kinds. The Many-Fingered Tangle has a round thick stem, and the fronds grow at the end like a bundle of streamers. Another Tangle is called the Furber-lows. It is a big plant, and the fronds are very crisp and curly at the edges. The Hart's Tongue Tangle is a pretty, delicate Seaweed, whose fronds, as the

name tells us, are shaped much like the Hart's Tongue Fern.

Growing on the rocks are many smaller Seaweeds. One of the commonest is the Bladderwrack, which often grows in great masses. When storms come and toss it on the shore in heaps, the farmers bring their carts and take it away, for it is useful as manure. Its name comes from the queer little oval bladders filled with air found in the leaves. It is a favourite Seaweed with the children, who love to pop the bladders.

The Coralline is a pretty little seaweed found on the rocks round about low-water mark. It is about 4 or 5 inches long, and deep purple in colour. It has the coral-like habit of sucking the lime from the water, hence its name.

The Green and Purple Lavers may be found in many a rock pool, spreading out their broad crinkled leaves in the water. The Green Laver is often called the Sea Lettuce because its bright green leaves are rather like those of a cabbage lettuce. It is good to keep in a salt-water aquarium as its leaves give off bubbles of oxygen, so keeping the water pure and fresh for the inhabitants. Both the Lavers may be boiled down into jelly and eaten.

Another very common Seaweed is the Dulse, which can be found growing on rocks or on other larger Seaweeds. Its many fronds are about two inches long and a quarter of an inch wide. In colour it is deep, dark red, and when the sun shines on it through the water, it gleams with all the colours of the rainbow. This Seaweed is also eaten, either cooked or raw.

The Oar Weed cannot be found in pools, for it grows in deep water, but,

like the Tangles, it is often torn up and flung on the beach. It is a strong Seaweed, red or yellow-brown, and its big fronds are sometimes many feet long. Occasionally it may be found with suckers at the end of it, showing how it held itself to the rocks.

The Sea Grass is a pretty, grass-like little Seaweed. It waves its narrow green fronds in the shallow water of rock pools. Some are like strips of narrow ribbon, and others are hardly wider than hairs.

(For *Creatures* of the Seashore, see later.)

The Garden

Many of the flowers given for last month will still be in bloom. The garden is not quite so gay in August, for while some of the Summer flowers have faded, the Autumn ones are not quite ready for blooming. Sunflowers, Clarkia, Mignonette, Godetia, Evening Primrose, Sweet Peas, Eschscholtzia (a most useful and showy flower for children's gardens), Rose Mallow, and others will be out.

Trees

The Lime will still be in flower at the beginning of the month. Many trees are now forming their fruits. The teacher may bring unripe Sycamore Keys, Ash Keys, and so on, to the schoolroom, so that the children may see the fruits in their various stages of development.

Insects

There are many insects about in August. It is the great month for Dragon Flies, and many beautiful specimens may be seen.

There are so many Butterflies and

Moths about that it is not possible to mention them all. Many to be found this month are in July's list. The Clouded Yellow Butterfly and Pale Clouded Yellow may be seen now, though their appearance is uncertain. The greater number are probably visitors from the continent.

Many Butterflies emerge from chrysalis form now, and a second crop of such kinds as Holly Blues, Green-Veined Whites, Grizzled Skippers, and so on, may be seen. These Butterflies came from eggs laid in the spring by insects just emerged from last year's chrysalids. Thus we may see, for instance, Holly Blue Butterflies in May, and another crop in August. This second crop lay eggs which hatch into Caterpillars, and then, before the winter comes, turn into pupæ (chrysalis form), so remaining until the spring, when they emerge as Butterflies, and lay eggs which produce the August crop.

Species of Butterfly or Moth showing two broods a year are known as double-brooded. Some are only single-brooded, while others are three-brooded.

Sometimes a wretched Caterpillar may be seen with a number of smaller ones in its body, actually living on the juices of the miserable creature. These are the grubs of the Ichneumon Fly, which lays its eggs in the body of the Caterpillar. They hatch out and feed on their host until it is time for it to pupate. By that time, however, it is nothing but skin, and what should be its chrysalis is occupied by the small pupæ of the invaders. Teachers should remove from the boxes any Caterpillar suffering from Ichneumon grubs, as most children dislike the spectacle intensely. The pupæ of the Ichneumon

eventually become perfect Ichneumon Flies, which feed on the juices of plants.

Hosts of winged Ants are everywhere now, leaving their nests in clouds. They rise and fall on their gauzy wings, the females finding mates. When the strange wedding-flight is over, the females go off to lay their eggs in cracks of the ground, so founding a new nest.

In the cornfields and meadows is the tiresome Harvest Mite or Harvest Bug. It is a parasite, and thrusts its sharp mandibles into its victim, either human or animal, sucking up nourishment.

Daddy-Long-Legs or Crane Flies are more in evidence. Earwigs are easily found and caught. The little brown Frog Hoppers, who once lived in the Cuckoo Spit as larvæ, are to be seen about. House Flies are a great nuisance, and the big Blue Bottle comes buzzing into the house. It lays its eggs in meat—a hundred, three hundred, nine hundred, perhaps. Two days later the eggs hatch out into larvæ. These emit a liquid from their mouths which dissolves the meat into a kind of gravy which they drink. This is the reason why meat goes putrid, evil-smelling, and fluid.

When the Fly emerges from the pupa state, it goes to seek for food. It may walk on foul manure one moment and feed on that, then fly to a ripe plum, then back to the manure, then in at our windows and alight on our food.* On its feet it carries particles of filth which it leaves behind it. It is a menace to health and should be killed.

The House Fly is also a menace for the same reason. It can be prevented from breeding by leaving no rubbish about, covering dust-bins, and so on.

Even little children may be taught such things.

In the Pond

The pond shows nothing new this month. The Gnats are still emerging from pupæ form, and raise bumps on our arms and legs when they bite us. The Dragon Flies, as mentioned before, may now be seen in numbers. It is possible to watch them emerging from their larva-case (there is no true pupa state in the Dragon Fly) if one sits quietly by a pond known to contain the larvæ.

Animals

Many animals begin to moult this month. (See last month's list for creatures to be seen.)

In hot, dry weather, when the ground is parched and cracked, the little Mole may be found above ground. He cannot tunnel in the baked-up earth, and is forced up into the open. It is an opportunity to examine him, and see his spade-like front feet, tiny, hidden eyes, and fur that has no "set."

The young of the quaint "Blind-worm" appear this month. Other names for this harmless creature are Slow Worm and Deaf Adder, both quite wrong. The creature, which is really a legless Lizard, is neither blind, deaf, slow, nor is it a Worm or an Adder. Many people kill it thinking it to be a Snake, but it is not. The young are beautiful little things, bright, animated silver needles, with a thin black line along the middle of the back.

Animals at the Seaside

Since many teachers like to talk to their children about the things seen at the seaside in the holidays, and bring

back many objects to show them, it will perhaps be useful shortly to describe here the shells, crustaceans, sea anemones, etc., that teachers will have seen, or may like to look for in company with their children. (See section on Seaweeds in this month as well, and also section on Sea Birds.)

Shellfish or Molluscs are divided into two classes—uni-valves or one-shelled, and bi-valves or two-shelled. The name Shellfish is not a good one, for these creatures are not fish. Another name for them is Mantle Wearers. This refers to the loose leathery envelope that covers their soft bodies and acts as a protection as well as helping in the growth of the shell. The name Mollusc means "soft-bodied."

One of the commonest uni-valves is the Limpet. This one-shelled creature clings so tightly to its rock that its tenacity has become proverbial. It is able to move about when it wishes to.

The Keyhole Limpet has a ridged shell with a hole at the top rather the shape of a keyhole—hence its name.

The Sea Snail is also common, and easily recognised. It varies in colour, being black, brown, orange, yellow, or green. It feeds on seaweed, and its long, ribbon-like tongue is set with hundreds of tiny hooked teeth with which it rasps pieces of seaweed away.

Whelk shells are always to be found on the shore, and everyone knows them. The Whelk lays its eggs in a small cluster all together. The cluster swells until it is about the size of a cricket ball, and each egg the size of a pea. If the big, yellowish-white cluster is picked up in the early spring, tiny Whelks, quite perfect, are found in each cell, ready to hatch out. In summer the empty egg-cases are seen,

blowing before the wind, white and papery.

The Periwinkle is too well known to need description. There are two kinds, the Common Periwinkle and the Dog Periwinkle. The latter is larger and has a stronger shell. It is not eaten except by birds—it is the Common Periwinkle that is used as food.

The Wentle Trap or Turning Stair shell is often found. It is a tall-shaped, spiral shell, very graceful and pretty. The Painted Top is another lovely shell. It is cone-shaped and beautifully coloured. It is spotted and streaked with scarlet, crimson, pink, purple, blue, white, and yellow. These Tops are useful Molluscs to keep in a salt-water aquarium, as they eat the green slime that grows upon the sides of the glass.

The Cowry also has a pretty shell. It is a quaint Mollusc, for its body comes right outside its shell. Look along the back of the shell, and a faint line will be seen. This marks where the two edges of the Cowry's body almost meet. In some parts of the world Cowry shells are used for money. They are, however, very much bigger than the little Cowries we find here.

Among the commonest bi-valves is the Mussel, found in thousands on the rocks. They cling there by means of many strong little threads, called the byssus. When the Mussel wishes to move it does so by means of its threads, moving a few at a time, then moving the rest, so pulling its shell along. Only a strong storm can wrench the Mussel from its anchorage.

Oyster shells are sometimes found, but little need be said about these, for they are well known. The Cockle is another bi-valve. When alive these

creatures bury themselves in the sand. They dig down by means of their "foot," a strong, fleshy organ. They can also jump with this.

The pretty Scallop is often seen where the shore is sandy. It is not as big as the Scallop we see in the fish-shop. That can only be found in deep water. The one we find on the shore is called the Variable Scallop because the colour of the shells varies so greatly.

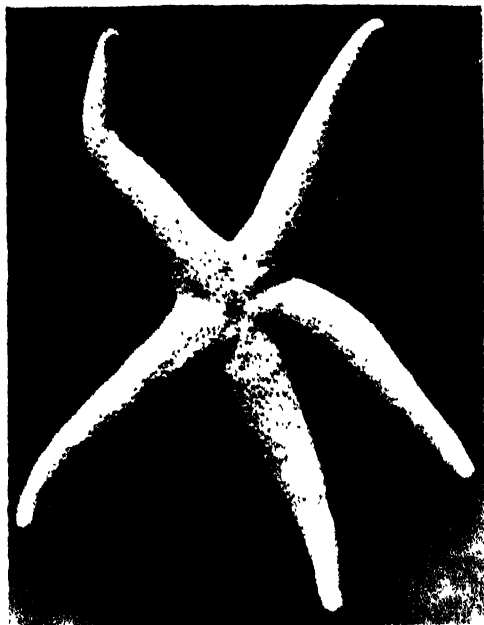
There are other shells to be found, but the ones mentioned are the commonest, and are likely to be discovered by most children.

On the shore a Starfish may sometimes be found, lying with his five "fingers" stretched out stiffly. If he is put into a pool he will begin to crawl away. Turn him upside down quickly and his legs will be seen. They are little, fleshy, white things jutting out from numbers of pin-holes on the under-side of the rays. It is with these tiny suckers that the Starfish moves.

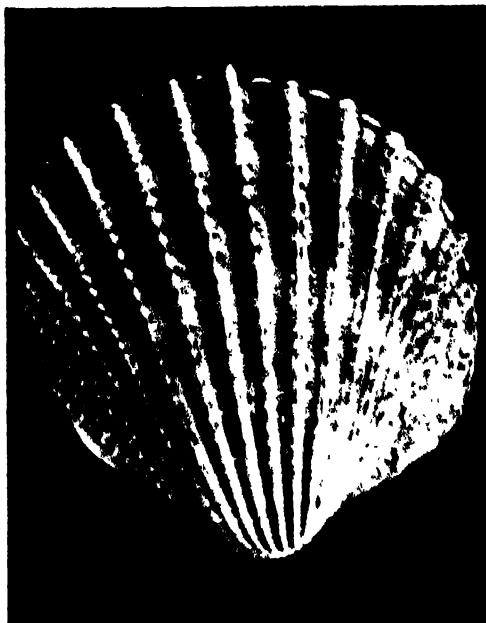
There are two kinds of Starfish likely to be found. One is the Five-Finger Starfish. If it is accidentally cut into two, it will grow new rays, and become two separate individuals. The second kind is the Sun Starfish, which has twelve rays, and is rather a handsome creature.

Children are always interested in the curious Jellyfish. They may perhaps see it in the sea, with its "umbrella" wide open, or they may find one marooned on the shore, fast disappearing in the hot sunshine. If it is not quickly rescued, it will soon be nothing but a ring-shaped mark on the sand, for its jelly body is composed mostly of water.

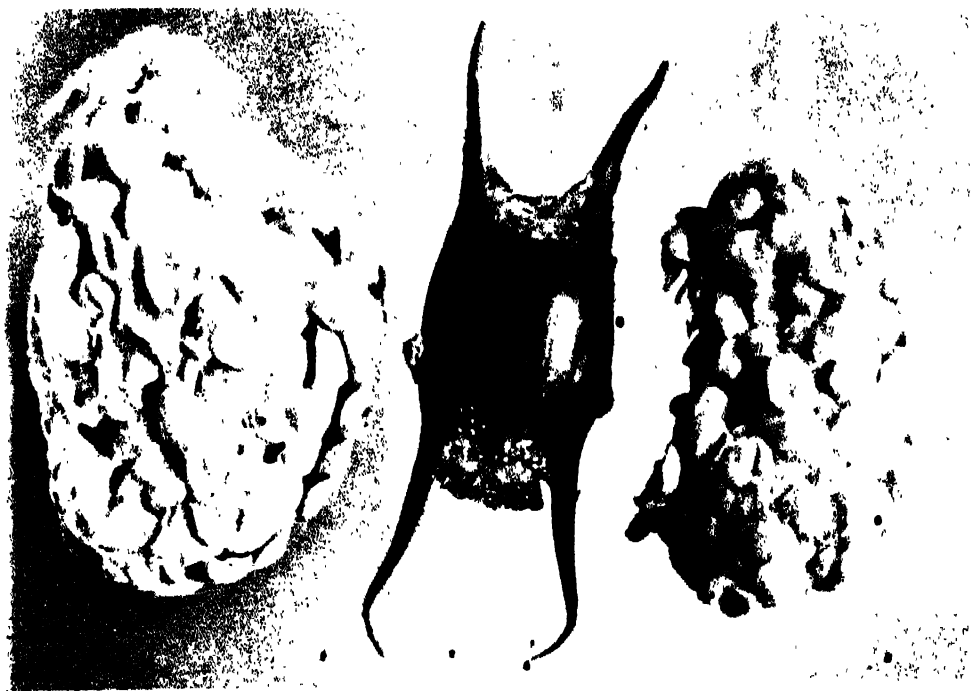
These queer creatures swim by open-



A STARFISH.



A COCKLE-SHELL.



EGG-CASE OF SKATE (centre) AND EGG-CASES OF WHELK (right and left).

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ing and shutting their umbrella-shaped bodies. They use the long slender threads that hang down at the edges for catching their prey. They are sting-threads, and when any little creature comes into contact with one, poison-darts spring out and bury themselves in the body of the victim, which becomes paralysed and dies.

The brown-yellow Stinging Jellyfish is most unpleasant to meet in the water. It is as large as a dinner-plate, and the yellow sting-threads feel like nettles when touched, so painful is the poison contained in them.

The pretty little Sea Anemones may be found in the rock-pools. When closed, they look like lumps of green or red jelly. They are not in the least like Anemones to look at when open, but are much more like chrysanthemums or dahlias. They hold themselves to the rock by their strong sucker-foot, and wave their ring of tentacle-fingers about in the water, waiting to catch any unwary little creature that comes near. If a Shrimp ventures too close, the tentacles close around him, and he is pulled down to the middle of the Anemone, which makes a good meal of him, sending out the husk of his body afterwards.

The commonest Anemone is the Smooth one. When open it has a row of turquoise blue "beads" shining between the roots of its tentacles. The Daisy Anemone is a pale grey-yellow, with tentacles ringed with grey and white. It can alter its shape in an extraordinary manner, making itself tall, short, fat, or thin, whichever it pleases.

In the water of the rock pools may be seen the little ghost-like Shrimps. Every child knows them, or, at any rate, has seen them in fishmongers'

shops. The difference in colour, due to boiling, will be noticed.

Shrimps act as scavengers in the pools and are very useful, for they keep the water pure by eating the decaying bodies of dead creatures. Prawns are very like Shrimps, but are bigger. Children often find it difficult to tell the difference between a big Shrimp and a small Prawn. Tell them to feel the long spike that sticks out from the creature's head. If smooth, they have caught a Shrimp—if saw-edged, a Prawn. Let them notice the lobster-like body, the two eyes set on stalks, the legs at the front, the many-jointed body, and the swimmerets at the back.

Crabs are certain to be found. The children will like to know that a Crab sometimes changes its coat. Its "shell" cracks across the back and the Crab leaps out. In twenty-four hours it has grown to twice its size, and it is not long before it possesses a fresh suit of armour.

The Shore or Green Crab is certain to be found. It is generally greenish in colour, but is sometimes found either brown or yellow, with black markings. The Fiddler Crab, unlike most of its cousins, can swim. Its hinder legs are flattened out and fringed with hairs, and are used as oars. It has a black shell covered with a soft velvety-looking down. It has striped blue legs, and blue and scarlet claws.

The Thornback Crab has a back covered with long sharp spikes and plants seaweed on itself in order to be well concealed from enemies. The Pea Crab is a very tiny creature, as its name implies. It likes to hide in the shells of cockles and mussels.

The Hermit Crab always interests children. It has a long soft tail, and is terrified that an enemy will come along and bite it. So it looks for an empty whelk shell and crawls backwards into it. It holds on to the end of it with a pair of pincers, blocks up the opening with its front claws, and feels quite safe in its quaint shell-house. Do not attempt to pull it out, for rather than let go, it will allow itself to be practically torn in half.

Two more things remain to be described. One is the Egg-case of the Skate. This is a black, horny object, about 2 inches wide and 3 inches long, with a projecting arm at each end. In this case is the egg of the Skatefish. When found it is generally empty, but sometimes in the early spring a tiny fish may be found inside.

The egg of the Dogfish is contained in a horny case rather like that of the Skate, but at the four corners are long, twisted tendrils instead of stiff handles. Both Cases are most interesting. The latter has been likened to a pillow-case, with strings. A popular name for both Cases is "Mermaid's Purses."

(See following section for Sea-Birds.)

Birds

August is a silent month as regards bird-song. The Yellow Hammer is still heard singing persistently in the hedgerows, and the Hedge Sparrow still gives his thin sweet warble. The Corn Bunting, a near cousin of the Yellow Hammer, utters his wheezy-sounding notes again.

Many birds begin to leave us. The Cuckoo is heard no more. ("In August, go I must.") It is the old Cuckoos, however, that go now—the young ones do not leave until later. One of

the marvels of migration is how these young untravelled birds find the way southwards. (See the Chapter on Common Birds for life of Cuckoo.)

Swifts become restless now, and before the month is over great numbers leave us. The Blackcaps and Nightingales begin to depart too.

As many teachers may be by the sea in August, it will perhaps be useful to describe here the Gulls and the differences between the various kinds.

It is difficult to make out the different species when they are all flying in the air. The teacher should choose a seat somewhere on the rocks, and watch the Gulls as they fly down to rest, or walk on the edges of the surf.

Our very largest Gull is the Great Black-Backed Gull. He has a black head, black wings, and flesh-coloured legs. The rest of his plumage is pure white.

The second largest is the Herring Gull. He has pearl-grey black-tipped wings, flesh-coloured legs, and a yellow bill with a red mark on it. The rest of him is white.

Then comes the Lesser Black-Backed Gull. He is very like the Greater, except that he is smaller, and his legs are yellow, instead of being flesh-coloured.

The Common Gull is the next in size. He has a stupid name, for he is not really our common Gull, which is the Black-Headed Gull. The Common Gull has pearl-grey and white plumage, and a green-yellow beak and legs. He is rather like the big Herring Gull, but smaller.

Then comes the Black-Headed Gull, our commonest one. His upper parts are lavender grey, with head, neck, and throat of dark coffee-brown. Under-

neath he is white, tinged with pink. His legs are blood-red, and so is his beak. When Winter comes his dark-brown head becomes white, speckled with brown. This is the Gull that comes inland in the Winter, and is familiar to the London teacher who frequents the Embankment. He also flies much farther up the river, and flocks with the Lapwings in the fields.

Last of all is the little Kittiwake Gull, the very smallest. Like the Common Gull, he is dressed in pearl-grey and white, but his legs are black. His beak is green-yellow. When seen close at hand, it is apparent that he has no hind toe. His pretty name comes from his cry of "Kitti-ake, kitti-ake."

It must be noted that young Gulls are always differently dressed from their parents. They usually wear a mottled brown suit.

SEPTEMBER

Weather

September is a lovely month, mellow and golden. Nature has passed through the hectic excitement of Spring, the lushness of Summer, and now, with her work fulfilled, stands calmly awaiting Winter days again. The sun is still hot, but the nights draw in fast and are chilly. Heavy dews come morning and evening. The big Harvest Moon hangs low down in the sky, round and golden.

Proverbs and Sayings

"St. Matthew bids good-bye to Summer, and St. Maurice shuts the door after him." (St. Matthew's Day is September 21st and St. Maurice's Day September 22nd.)

"If Michaelmas Day be fine, the sun will shine much during the Winter, though the north-east wind will blow hard and often." (Michaelmas Day is September 29th.)

"St. Matthew
Brings cold, rain, and dew."

"At St. Matthew
Get candlesticks new."

"At St. Matthee,
Shut up the bee."

"If the north wind blows on Michaelmas Day, the month of October will be dry."

Flowers—Fruits

September shows a diminishing flower list. Ragwort, Eye-bright, Corn Marigold, Toadflax, Chamomile, Mayweed, Fumitory, Knapweed, Red Campion, Harebell, Knotgrass, Yarrow, Climbing Buckwheat, many Thistles, Heartsease, Shepherd's Purse, Chickweed, Gorse, Grass of Parnassus, Field Madder, Corn Parsley, various Spurge, Persicaria, Thrift, Sea Lavender, Field Gentian, Scarlet Pimpernel, White Deadnettle, Wild Teazel, Devil's Bit Scabious, Daisy, Groundsel, Chicory, Dandelion, various Docks, and Common Lady's Tresses may still be found.

The pretty Meadow Saffron, or Autumn Crocus, flowers now. (It is not really a crocus, for it belongs to the Lily family.) It produces only flowers now, and grows its leaves in the following spring.

The Autumn Pheasant's Eye, or Crimson Adonis, is a very beautiful weed found in the cornfields this month. The foliage is very finely cut, and the blossoms are deep crimson. It is not plentiful, but is by no means rare, and is quite unmistakable when found.

The Michaelmas Daisy is a true flower of autumn. In some parts it may be found wild.

Many fruits now brighten the hedges. Hips and Haws, the fruit of the Wild Rose and Hawthorn, may be seen ripening everywhere. The Blackberry begins to ripen also, and the children set forth to pluck the juicy berries. Green, red, and black berries may be found on the same spray, and make beautiful decorations for the classroom.

The scarlet Bryony berries shine in the hedges, and below, on the bank, are the bright red spikes of poisonous berries borne by the Cuckoo Pint. The purple-black fruit of the Deadly Nightshade is ripe, and on the moors and commons can be found Cranberries and Bilberries ready for eating.

Hops are ready for picking now. The Blackthorn is hung with deep purple fruit. Thistles are sending out their fluffy seeds, and Dandelion clocks blow about. Willow-herbs split their seed-cases down, and set free their silk-winged seeds. The Poppy heads shake in the wind and jerk out hosts of tiny seeds through the windows just below the top edge. Children liken these to pepper-pots, and hold them upside down to shake out the "pepper."

Numbers of other plants, too numerous to mention, are seeding now. A country walk will produce many scores of different seed-heads, pods, capsules and so on. Many of the seeds may be planted in pots, so that later on the children may see seedling Buttercups, Thistles and so on growing before their eyes.

In the garden there is not so much colour. Many Sunflowers are out, both the Annual and the Perennial. When

the Giant Sunflowers are grown, cut off the ripening heads, and store them for hanging up on the bird-table later on. Such birds as Greenfinches, Chaffinches and Sparrows love the seeds.

Michaelmas Daisies are out in all their glory now. No longer are they all mauve, for glorious pinks, blues and whites may be had. Asters flower now, and Dahlias are in their prime. Snapdragons are still out, and Roses begin to put forth their autumn crop of bloom.

Bulbs

If bulbs are wanted in flower at Christmas time, e.g. Roman Hyacinths, they should be planted now.

Fungi

Autumn is the great season for Fungi, and they may now be found in large numbers. The Common Mushroom is well known.

Trees

Some of the trees are beginning to turn colour, and the deep green of the woods is changing to yellows and browns, especially in a dry season.

Many trees show their fruits now. The Rowan or Mountain Ash bears coral clusters of berries, much beloved by the birds. The Guelder Rose has crimson clusters too, while the Elderberry holds out masses of purple fruit to the ever-hungry Starlings, Blackbirds and Thrushes. Acorns are forming, Hazel nuts are ripening, Horse Chestnuts are growing bigger in their prickly cases, ready for "Conker" time. Walnuts are ripening, and the berries of Yew and Holly begin to decorate the trees. Beech-mast can be seen on the Beeches, and the Plane

hangs out its balls. Sycamore and Ash shake their "keys" in the wind, and already the "spinners" come circling down to earth, dry and brown.

Apples and Pears, Plums and Green-gages hang in the orchard now. It is harvest-time everywhere, not only in the corn-fields, but in hedgerows, on the hillside and in our gardens too.

Insects

Insects are not so many now, and no new kinds are to be expected save for a few late broods of Butterflies, such as the Wood White, and a few Moths. The Vapourer Moth may be seen flying in the sunshine, and the Figure of Eight Moth (so called because of the two figure 8's on each wing) flies at night.

Many caterpillars may be found, feeding on their favourite plants. They eat voraciously whilst the warm weather lasts, for as soon as cold days come they must perforce turn into pupæ to sleep through the winter.

Daddy-Long-Legs (Crane Flies) are much in evidence. The male has a blunt end to his body, and the female has a pointed end, for she deposits her eggs in the earth, and needs a sharp ovipositor. She lays two or three hundred eggs at a time and these hatch out into "leather-jackets," much hated by farmers because of the harm they do to the roots and stems of corn and grass. The grubs are brown, dirty grey or sooty black, with thick tough skins to which is due their curious name. They change into pupæ after a time, and emerge the next year as Daddy-Long-Legs.

One of the great features of this season is the abundance of gossamer, woven by tiny Spiders. (Spiders are

not insects, but come most conveniently under that heading for our purpose.) This lovely gossamer is particularly noticeable on warm, fine mornings, when trees and hedges for miles around may be seen draped in the downy silk.

The tiny Spiders make a kind of magic-carpet or raft of silk, which is sent out at the end of a long fine thread. So light is the tuft of silk and its small occupant that often the little traveller stays suspended in the air until night-fall brings him down, far from the nest where he was born. In this quaint manner do the little Spiders migrate to new homes.

In the Pond

There is nothing new to be noted here for September. A few late Dragon-Flies may still be seen. Towards the end of the month young, mature Newts begin to leave the water to seek a good place in which to pass the Winter. Others not fully mature stay in the pond for the cold days, and hibernate there.

Animals

Those creatures that hibernate now begin to make ready for their Winter sleep, especially if the season is unduly chilly. The Dormouse makes himself plump for the Winter and so does the Hedgehog. Frogs seek the bottom of the pond, and Toads look for a good hiding-place beneath a stone, or in a damp bank. Snakes and Lizards are not seen so often.

Birds

September is the great month for the departure of Summer migrants. Swifts and Cuckoos (adult birds) have already gone, and so have the Sand

Martins, Fly-catchers, Whitethroats, Nightjars, Red-backed Shrikes, Yellow Wagtails, Wheatears and many of the Warblers. Nightingales and Blackcaps have gone. The Ring Ouzel departs too. The woods, gardens and hedgerows become emptier, and one by one we miss the Summer visitors, and hear their calls no more.

The Robin sings well this month, and his creamy notes may often be heard. The little Chiffchaff sings again before he departs, and so does the Willow-Warbler. The Thrush and the Blackbird find their voices once more, and at night the Tawny Owl hoots in the woods, and round about our gardens.

At the end of the month the Snipe and the Woodcock come to us.

OCTOBER

Weather

October gives us the last of Autumn. It is a month of steady temperature. The sun still has warmth, but the days are short, and the evenings chilly enough for a fire to be very welcome. The colouring of trees is lovely this month, and many fruits are to be found.

Proverbs and Sayings

"Thunder in October signifieth the same year great wind, and scantiness of corn, fruit and trees."

"He who has not sown his corn by St. Luke's Day (the 18th) tears his hair for sorrow."

"In October dung your field,
And your land its wealth shall yield."

"Wherever St. Denis places the wind, there it shall blow for three quarters of the year." (The day of St. Denis is October 9th.)

"A hard winter follows a fine St. Denis."

Flowers—Fruits

October shows a still further diminished flower list. Devil's Bit Scabious, Herb Robert, Ragwort, Shepherd's Purse, Groundsel, Dandelion, Hemp Nettle, Mullein, Dock, Meadow Saffron, Daisy, Sea-Lavender, Watercress, Chickweed, Bur Marigold, Carline Thistle, Chicory, Petty Spurge, Dwarf Furze, Wall Pellitory, Knotgrass, and Persicaria may still be found, with a few others.

October's newcomer is the Ivy, which now flowers. It is full of sweet juices, and, like the Sallows earlier in the year, it attracts great hosts of insects who come to feast in delight on the rich nectar. By day and night it is humming with visitors all eager to share in the last feast of the year.

The teacher should take her children to an old wall covered with ivy, and let them see what a host of winged insects have discovered it. A stretch of flowering ivy in the yellow October sun is a fine sight to see. The black boot-button berries should be looked for in February and March.

Gardens are gay with Michaelmas Daisies and late Asters. Dahlias flourish until the first frost lays them low. Sunflowers turn their yellow faces to the sun, and late Roses blossom, showing even more perfect blooms than were found in the month of June. Chrysanthemums are ready for picking, and make the beds very bright.

Many fruits are to be seen in the hedges and fields. A great number may be gathered and brought by the children. Those that are scattered by the wind may all be put together, and

the children may throw them into the air and blow them, pretending to be the wind. Dandelion clocks, Thistle fluff, and so on, are soon obtained, and it is easy to see how the wind helps the seeds to find a fresh home.

Pansy seeds may be brought in from the garden, and the little "boats" pressed together to show how far the seeds can jump. Poppy heads may be played with. As many different seeds and fruits should be brought as possible. It is not necessary to learn their names, though some bright children will like to know them. It is enough to know where they came from (i.e. from a flowering plant or tree), what they are for (to produce new plants), and in some cases how they are taken to new homes. Let the children plant some in pots, and watch the new plants come from the seeds.

They will like to grow an Acorn in an acorn glass, and a Chestnut also. It is interesting to see the root and shoot develop, and the children can then clearly see that a seed truly contains a new plant within itself.

Many beautiful berries may be found for decoration purposes. Perhaps the most beautiful of all are the bright pink berries of the Spindle Tree. The pink outer cases split into three and reveal brilliant orange seeds inside. The combination of colour is amazing, and a tree in full berry is a wonderful sight. It is rather local, but in some places is found growing wild in great numbers. It is often found as a bush in the hedgerow.

Hips and Haws, Bryony, Honey-suckle, and Blackberry shine out in the hedges. Soon the Blackberry will be over, and the children will no longer be able to fill their baskets. Let them

notice the lovely colouring of the Bramble leaves, and pick some for the classroom. The Bracken must be noticed too, for it is at its loveliest now, and glows a glorious yellow-brown. Bracken-covered hills and woods are a beautiful sight.

Bulbs

Plant bulbs in bowls for early flowering indoors. Also plant bulbs in the garden now, and they will flower in good time next Spring. Snowdrops, Crocuses, Bluebells, and Daffodils do well in grass, and are at their loveliest there.

Trees

The trees show every colour imaginable as they take their Autumn tints. From a distance the woods are an enchanting sight, and the different shades of yellow, crimson, scarlet, brown, and gold are beautiful to see. The Evergreens look dull and sombre now, but later on, when all the other trees are bare, we shall be glad of their green.

The Chestnut turns to gold and brown, the Beech to a wonderful colour, the tint of golden sovereigns, the Birch to a delicate yellow, and the Hazel and Lime to a rich gold. The Wild Cherry stands dressed in every shade of pink, crimson, and red. The Elms are a glory of gold, and the Poplars, too. The Oak clings to its leaves for a long time, even to the depth of Winter and beyond, and stands clad in a lovely russet brown.

Let the children bring to school all the loveliest leaves they can find. Then let them hold them up so that the sun is behind them, and see the glowing colours of the Autumn leaves

at their best. This is a "game" they love to play, and teaches them a real appreciation of Autumn colouring.

Leaf-fall is very much in evidence now. After a frosty night the leaves drop in great numbers. On a windy day they swirl round and round as if they were alive. The reason for the fall is that a layer of cork grows up between the stem of the leaf and the tree, and only a few fibres are left to hold it on. One by one these snap, and a sudden gust of wind sends showers of leaves down. (No explanation of leaf-fall should be given to the children in the Infant School.)

Country folk say that for every leaf caught as it falls from the tree a happy day will be experienced during the following year. Let the children try to catch the leaves. Let them notice the numbers of new buds waiting for the next Spring. Nature always looks a long way ahead.

The leaves have still another duty to do. They enrich the earth on which they fall, some much more so than others.

Besides the leaf-fall, and the wonderful Autumn colours, the children will notice the fruits of the trees. The Acorns, Chestnuts, Hazel nuts, Plane Balls, Lime Fruits, Ash Keys, Sycamore Keys, and so on, may all be collected and played with.

Fungi

Autumn Fungi are now at their best.

Insects

There is a noticeable decrease in Insects this month. Frosty nights kill great numbers. Few Butterflies are about, and not many Moths are to be seen. The Brimstone, Tortoise-shell,

Red Admiral, and Peacock often hibernate during the Winter and may be seen on warm days. They like to feast on the Ivy blossoms, and may often be found there.

Our largest Moth, the Death's Head Hawk Moth, may be found in October, and also earlier in the season. It has a wing-spread of 5 inches, and when caught, squeaks like a Mouse. It can be recognised by the skull-shaped markings on its back.

The Green Fly now lay their last batch of eggs. These will hatch out in the spring, and so, alas, provide another blight next year. Ants love to feed on the sticky liquid that oozes from the bodies of these tiny insects. Sometimes they keep them as "cows," stroking them with their antennæ in order to make them exude the juice they love.

Daddy-Long-Legs still drift in and out of the house, though a sharp frost will kill practically all. House Flies and Blue Bottles may be found on the Ivy, with many other sorts of flies, big and little. Many Spiders come indoors. (They are not insects, however.)

In the Pond

Nothing new may be noted this month, save a diminishing in the number of insects on the pond surface. Newts continue to leave the water in search of a Winter hiding-place.

Animals

Those animals that hibernate are busily preparing their Winter shelter. The Squirrel is laying up his hoard of nuts, which he will sometimes come out to seek on a warm Winter's day. He likes to bury them in the ground, and cover them with leaves. Field Mice

and Shrews are also preparing for Winter. Many a hoard of cherry stones, nuts, and so on, is gathered by the Mice, and stored up in hollow trunks or among the roots of trees.

Birds

Our last summer migrants depart now, though in very fine warm weather a few may still remain with us into November. Swallows and House Martins are about the last to go. The Corncrake goes, and the Sandpiper, too, if not already gone.

Now our Winter visitors begin to appear. They are the birds that come from the colder climes to our warmer land for the same reason that our Summer visitors now leave us. The Redwings and Fieldfares, members of the Thrush family, arrive. The Fieldfare likes to feed on our hedgerow berries, and may often be seen devouring these in bitter weather.

Many birds flock together now. Chaffinches go about in numbers. Sometimes the hens are in one flock, and the cocks in another. Starlings crowd together and their musical talk is much heard. Lapwings also begin to flock.

There is not much song to be heard. The Robin's voice is oftenest noticed, and his delicious warble rings out in every garden. As the days become colder, frequent fights between the Robins are seen. Male fights female, and children fight parents. This is because each Robin wishes to stay in the place in which he lived all Summer, and resents being forced away. As there would not be enough food for all the family if they stayed together in one spot, it is essential that each Robin should find a "beat" of his

own. It is because of this that fights take place. In the end the victorious Robin stays where he is, and the others are driven off to find new quarters. It often happens that one Robin will take possession of the front garden, and another Robin will be lord of the back garden. Things go smoothly until they meet in the side-passage, when feathers once more begin to fly. Most gardens own a Robin in the winter, and the children should be encouraged to make a pet of him.

The Bird-Table should be put out towards the end of the month unless the weather is very mild.

NOVEMBER

Weather

November is not a very pleasant month, though it sometimes gives us mild sunny days. Storms and fogs, much rain and gloom come at this season. The countryside is at its worst, untidy and decaying vegetation straggles in every field, wood and hedgerow, and the trees stand bare, bereft of their gay Autumn dresses. The days are short, and we have to get up in the dark. Frosts spoil the remaining flowers, and make us shiver and pile the logs on the fire.

Proverbs and Sayings

"If there is ice that will bear a duck before St. Martin's Day (November 11th), there will be none that will bear a goose all Winter."

"Plant trees in November and command them to grow; plant them in February, and entreat them to grow."

Flowers—Fruits

November's flowers are few, and their number depends on the weather.

The Ivy still blossoms. The Daisy, Groundsel, Shepherd's Purse, Chickweed, Red Dead-Nettle, Petty Spurge, Wall Pellitory, Knotgrass, Dwarf Furze, and occasionally a clump of Ragwort and a hardy plant of Toadflax are to be seen.

Old Man's Beard lies along the hedges, sometimes in great masses. It is very pretty, and some should be taken for the classroom. Let the children examine the silk-plumed seeds that make up the "Old Man's Beard."

The fruit of the Bur Marigold is now ripe, and if we go for a country walk we shall probably come back with some of the burrs fastened tightly to our stockings, and to the coats of our dogs. Thus does the plant ensure that its seeds find new homes, far away from itself.

The gardens are bare now, and except for a few late Roses and Chrysanthemums, no flowers are seen. It is the time to cut down, burn, dig and plant.

Bulbs

It is still not too late to plant bulbs in the school garden.

Trees

All the deciduous trees (i.e. those that shed their leaves) are now bare. The Oak, the Beech and the Hazel still cling to a small number of their old shrivelled leaves, and the Oak may retain a few until the following spring.

The Evergreens may be clearly seen. The Firs, Pines, Evergreen Oak, Holly, Privet, Laurel, and Ivy stand out against the bare Oaks and Beeches, and make a brave show of dark green in the gloomy days of November.

Insects

Few insects are to be seen. Bees, Queen Wasps, and Ants are sleeping. Butterflies seldom appear save on very warm sunny days, when the hibernating Tortoise-shells, Brimstones, Peacocks, or Red Admirals fly out from their corners. The little November Moth emerges from its cocoon, and so does the Winter Moth.

In the Pond

There is nothing new to be noted this month save that Frogs bury themselves in the mud at the bottom of the pond for the Winter.

Animals

Last month's activities are continued into this. Preparations for hibernation are finished, and the animals go to their holes, nests, or "earth." Slugs and Snails retire to holes and crevices. The Squirrel goes to his nest, and so does the little Dormouse. The last of the Bats is seen this month. They then retire to old barns, church towers, outhouses and so on, where they hang themselves upside down by their hind-legs during the winter months.

Toads find a comfortable damp place beneath a stone, or by a ditch-side. Snakes curl up together in a wood-pile, in a hollow tree, or down among the roots. Hedgehogs make themselves a cosy lair in a ditch. Badgers line their "earth" with leaves, block up the passages to keep out cold and unwelcome visitors, and then go fast asleep, the whole family together.

Some animals change their coats, putting on Winter dress. The Hare (Scottish or Variable Hare, not Brown Hare) becomes white, and so does the

Stoat in northern parts. The Hare retains the black tips of his ears, and the Stoat (known as the Ermine in his Winter dress) retains the black tip of his tail. Most animals grow thicker, closer fur in the Winter. Dogs and cats are no exception. Horses also grow a thicker coat, which sometimes has to be clipped in the warm spring-time.

Birds

The flocking of birds becomes more noticeable now. Starlings, Lapwings, Linnets, Tits, Golden Plovers, Wood Pigeons and Finches may all be seen in flocks. Some of them, such as the Starlings and Lapwings, flock together in many hundreds.

Our resident birds may be studied now, especially those that come to the Bird-Table.

Occasionally the Lark's song may be heard, and sometimes the Thrush sings; but the real songster of November is the Robin. Young Robins now don their scarlet waist-coats, and begin to practise the family song.

DECEMBER

Weather

Christmas cards always make us think of December as cold and frosty, with snow on the ground, and ice on the pond; but very often it is mild and fair, and primroses sometimes open their pale blossoms in the shelter of woods and banks. In northern counties frost and snow are certain, and bitter weather makes man and beast shiver.

The days are very short now. The shortest day falls on either December 21st or 22nd, and after that date the days begin to lengthen. The short day is made up for by the brilliance and

beauty of the stars in the long December nights.

The snow protects vegetation, for air is entangled in the flakes in the same way as it is entangled in the downy feathers of birds. Thus whatever warmth the earth has is not allowed to pass away, but is kept in by the snow, which is always at a higher temperature underneath than on top. It acts as a blanket or shawl, keeping the warm air in and the cold air out.

Snow crystals are always six-sided in form. The children can make out the crystals with the naked eye, if they see them caught on black velvet, or even on the sleeve of a dark coat. An ordinary magnifying glass will show them in all their beauty. The variety of forms is amazing.

Ice is also composed of six-sided crystals, but these cannot be seen when frozen. The microscope shows them as water-stars when melting. Water expands just before freezing, and this explains the bursting of water-pipes. A bottle filled with water, left out-of-doors on a frosty night will be found shattered to pieces in the morning, thus showing clearly that water expands when freezing.

It is this fact that renders frost so invaluable to the farmer, for his fields are well broken up for him during frosty weather, and our gardens, too, benefit by the crumbling of the soil due to the action of the frost. Cliffs and rocks are also broken up in the same manner.

Proverbs and Sayings

• "A long frost before Christmas oft means an early Spring."

"Rain in December brings frost in February."

Flowers—Fruits

December does not have many flowers, but there are often more to be found than one would think. The Daisy greets us, and the Groundsel; Shepherd's Purse may nearly always be found; in mild weather early Primroses blossom, and even the Lesser Celandine puts out a few bright flowers; Butterbur and Coltsfoot may sometimes be found, too, but their appearance and numbers depend entirely on the weather.

Berries may still be found in woods and hedgerows. The Holly is decked with scarlet, and its gay berries are ideal for our Christmas decorations. The Mistletoe shows its pearly berries, too. This plant is a parasite, and grows on other trees, sending a sucker right down into the branch, drawing up much of the nourishment it needs.

Save the berries for the Missel Thrushes, who love them. The seeds are very sticky, and when the bird cleans its beak on the branch of a tree it often leaves a seed behind. This sends out a penetrating sucker into the branch. Two leaves appear, and thus the plant is established, growing into a bushy projection as time goes on.

The teacher may very easily plant a Mistletoe seed herself. Choose an oak or an apple tree, cut a hole in a branch, and press the seed into it. Let the children watch month by month to see what happens.

Hips and haws are still bright in the hedges, though the birds have taken toll. Privet still bears its black berries, and the Elderberry has a few purple ones to offer to the hungry Thrushes and Starlings.

In our gardens the Christmas Rose is

in flower. This is not really a Rose, of course, but a species of Hellebore. Its white blossoms are very welcome at this season. A root should be planted in the school garden, for children love to watch for the blossoms in the dull month of December. A few Primroses and Polyanthus may bloom now, and perhaps one or two Violets.

Bulbs

It is still not too late to plant bulbs for Spring flowering in the school garden. Snowdrops and Crocuses, if planted now, will flower late, and so will Daffodils—but better late than never. Towards the end of the month the early Roman Hyacinths, planted in bowls in September, should be in bloom. Other bulbs should be showing green spikes.

Trees

The Holly and one or two others have already been mentioned this month in connection with their berries. The Evergreens stand out well against those trees that are bare, but when snow comes it will be seen that they suffer, for their leaf-clad branches catch more snow, and are often broken beneath the weight. The bare branches of the deciduous trees (those that shed their leaves) retain only a small amount of snow, and do not suffer so much, if at all.

Look for catkins on the Hazel, and the buds of the Sallow, which already contain within them the grey silky down of the "Pussy Palm." Other twigs may be gathered—the black buds of the Ash, the sticky buds of the Horse Chestnut, the fine-pointed ones of the Beech, the irregular buds of the

Oak, all are available for study and appreciation.

Fungi

Mosses, Liverworts, and Lichens are at their best now, and are both beautiful and interesting.

Insects

Few Insects are about now, though if the teacher cares to examine the bark of a fallen tree, the sheltered side of an old wall, and so on, she will be surprised at the number of small creatures she will disturb.

A few hibernating Butterflies come out on sunny days. (See last month for likely ones.) The Winter Moth and Mottled Umber may also be seen.

In the Pond

There is nothing to be noted here. It is interesting to know that many creatures frozen solid into the ice will thaw out perfectly strong and healthy, full of vigour, in the springtime.

Animals

The Squirrel comes out on warm days and looks for his nuts. Stoats and Weasels venture farther afield in their hunting. Rabbits nibble the bark

of Ivy and of trees when the ground is covered with snow.

Many snow tracks are to be seen. A walk in the snow through the fields will show an interesting number of different tracks. (See Chapter on "Snow Tracks.")

Moles are at work in a warm month, and their mounds of earth may be seen. They are sometimes quite large, for they have to burrow deeply for Earthworms in December.

Birds

The Bird-Table will afford much interest and pleasure this month. (See Chapter on "Making friends with the Birds.") Most of the common birds may be studied at close quarters by means of the table, and for little children there is no better way of arousing a feeling of friendliness for birds than this.

The teacher should be on the watch for rare visitors if the Winter is especially severe, for then many unexpected birds arrive, and it is a delight to see them.

Winter is an excellent time for bird study in the woods and fields, as the trees are bare and the birds are easily seen.

CHAPTER II

NATURE STUDY ACTIVITIES

Activities that may be Classed under the Heading of Nature. Activities Relating to Plant Life. Activities Relating to Bird and Animal Life. Other Activities. A Wide Choice.

IN this Chapter will be found a list of all those activities which the Infant Teacher may conveniently class under the heading of Nature. Many of them will be seen to be early preparations for Science, but as the two subjects are very much inter-mixed, it is not wise to separate them at an early stage. To the children it will be all play, interesting and enjoyable.

The list is fairly comprehensive, and will be especially useful to the teacher who is not well versed in what she should include under the heading of Nature Study. Those teachers who have a passion for the subject will be able to add more things from their own experience. For them it will be more useful as a reference than as a guide.

Nature in the Infant Room is not a set lesson. Certain times may be set apart for it—probably the early part of the morning, when the children are arriving—but there will be many other times when Nature Study creeps in. A rainbow cannot be fitted in to any special time ; it must be seen when it happens. A buttercup walk or a bluebell ramble must be taken when weather permits ; and so on.

Children of this age should not be taught lists of names, nor should they dissect flowers or buds. They should be very little questioned, and should

be allowed to handle things, and play with them. Their own questions should be answered, and they should be encouraged to talk about the things they notice. If the teacher is responsive, and marvels at the things that excite wonder in the children, if she expresses surprise and delight, and is full of enthusiasm, she will get twice as much out of the children as a teacher who does not trouble to share in the feelings of her pupils.

It goes without saying that as much Nature Work as possible should be done out-of-doors.

List of Nature Activities—Plant Life (Fig. 1)

Bring flowers to classroom and arrange them in vases and bowls. Give them fresh water. Wash vases when new flowers are put in.

Bring other things, in their season, to decorate the classroom. All the year round (see Calendar) there is something that may be brought. Hazel catkins, opening buds, " pussy-palm," ivy berries, hips and haws, old man's beard, grasses, bryony berries, black-berry sprays, holly and so on.

Grow bulbs in the classroom. (See Chapter on this subject.) Plant them, water them, and stake them where necessary. Grow them in pots, bowls or in special bulb-glasses ; in the latter

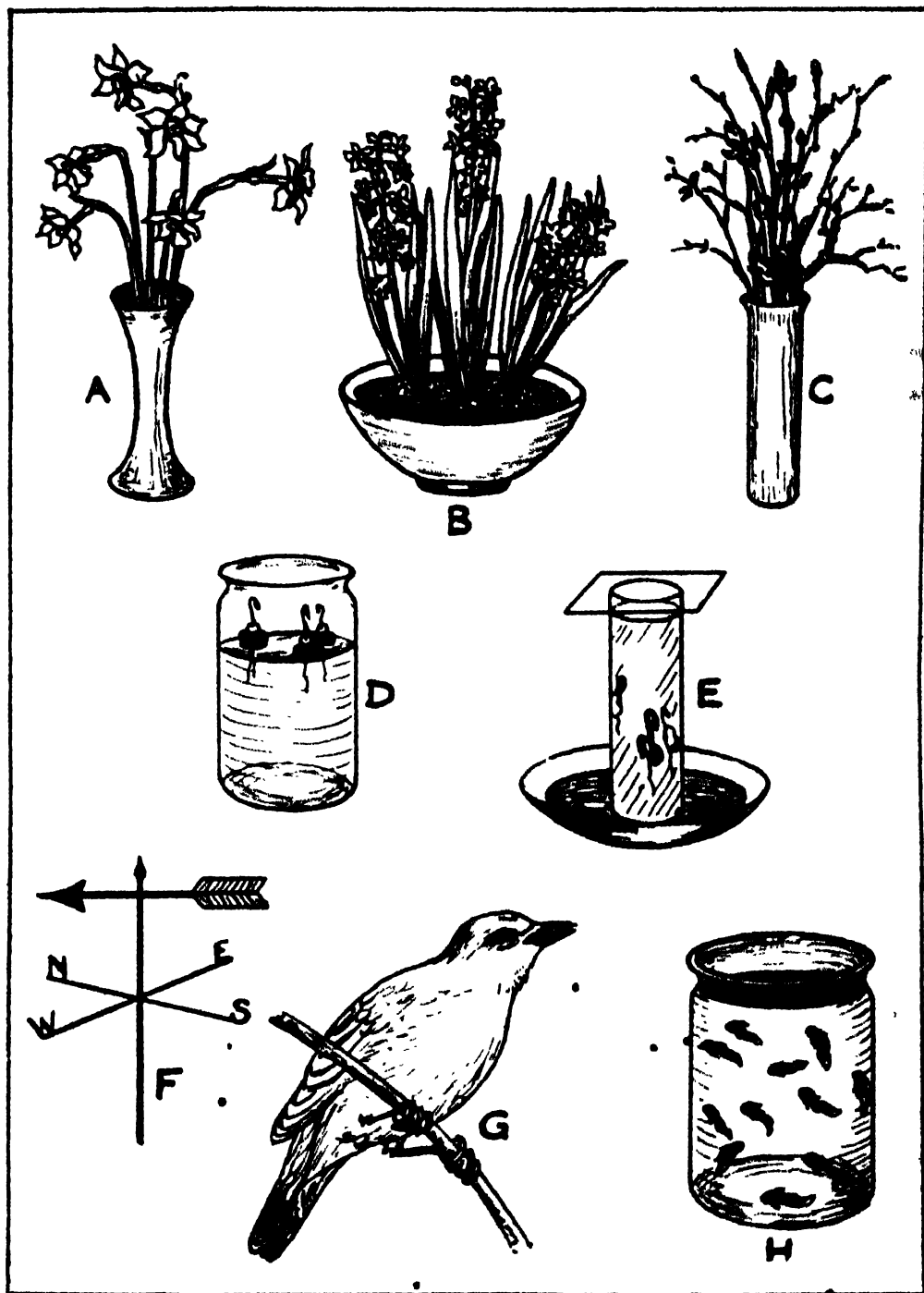


FIG. 1.—NATURE ACTIVITIES.

(A) Arranging Flowers. (B) Growing Bulbs. (C) Observing Twigs. (D) Germinating Peas. (E) Germinating Beans. (F) Observing Wind Direction. (G) Listening to Bird-song. (H) Keeping Tadpoles.

the children can follow the growth of the roots.

Grow bulbs in the school garden. A mass is better than one or two scattered at intervals. Joy is brought to a whole school by the sight of a hundred snowdrops planted somewhere together.

Grow seeds in the school garden. The hardy annuals are best for this. Grow perennials. Divide them up in the Autumn, and give the children little pieces for their home gardens. Visit the park-keeper in the same season and get from him cuttings, etc., to plant in the school garden. These can usually be had for nothing.

If the school has no garden sow seeds in pots or window-boxes. Even in London a school window-box with plenty of blossoms will bring butterflies and bees from somewhere.

Grow mustard and cress on wet flannel. Grow acorns in acorn cups, and also chestnuts. Plant other tree-seeds, e.g. sycamore, in pots. Plant buttercup seeds and dandelion clocks, and anything else of interest to the children. Germinate beans. Plant canary seeds and grow for the Infants' canary.

Grow carrot tops in saucers of water, and watch them send up their pretty leaves.

Sprout potatoes in a shallow dish on the window-ledge.

Teach which berries are harmless, and warn against all others.

Go for country rambles—to the buttercup fields, the bluebell woods, the primrose lanes. Take the children blackberrying. Take them to the pond to fish for tadpoles. Take them to a farm, arranging beforehand with the farmer what they may see and do. Take them on the common in heather

time. Take them out in Winter to find classroom decorations, or in Autumn to see the trees. A walk of this kind with a nature-loving teacher is more instructive to the children than many hours in the classroom. The great difficulty is the largeness of the classes, and the responsibility attached to the charge of so many little ones. This is a difficulty only to be solved by the individual teacher. Where the classes are very large a ramble or picnic will be managed but seldom, but the value of these cannot be too much emphasised.

Play with large seeds. Bags of broad beans, acorns, nuts and so on may be stored in the cupboard ready for use when needed. Tell the time by dandelion clocks. Make necklaces with acorns, and hips. Make cowslip balls. Find out who likes butter by means of the buttercups. Play "aeroplanes" with sycamore fruits. Hold up Autumn leaves to the sun and see the colours glow. Hang up seaweed to foretell the weather. Blow thistle seeds in the air. Shake hazel catkins and see pollen fly. Pretend to use poppy heads as pepper pots and shake out the seeds. Play with ears of corn. Count grams. Grind corn. Plant grains.

Visit the school garden frequently. Notice all the different happenings there.

Activities relating to Bird and Animal Life

Keep pets where possible (See Chapter on this subject.) Do not keep any birds other than a canary, pigeons, or chickens. See to their comfort. Keep rabbits, guinea-pigs, white mice, white rats, or dormice. If the teacher lives in the schoolhouse, and keeps a dog or cat, these animals rapidly become the children's pets.

Keep a tortoise in the garden, but protect lettuce, violas, and delphiniums from him. Keep a toad, and as many frogs as possible, for they are useful in the garden. The toad responds to friendliness, and the day when he will allow the children to tickle him on his back is truly a great one.

Put up a bird-table (see Fig. 2). (See Chapter on this and kindred subjects.) Put food daily on the table. Clean it. Place fresh water there every day. Watch visitors to the table. Collect berries for it. Save sunflower heads. Encourage children to have a table at home.

Put nesting-boxes in the garden in suitable places. Make a bird-bath, or buy an enamel bowl and keep it filled with water. Put out a "lucky-bag" of nesting material for the birds in a position in which the children can see birds visiting it.

Watch for the first swallow. Listen for the first cuckoo. Visit the gulls on the Embankment if the school is in London. Try to tame a robin in the school garden.

Listen to the birds singing, especially in springtime.

Keep a vivarium if possible.

Keep an aquarium. (See Chapter on this.) Keep goldfish, water-snails, minnows, etc. Grow water-weed. Keep tadpoles.

Watch bees at work. Watch ants. Look out for butterflies and moths. Keep bees, if this is possible.

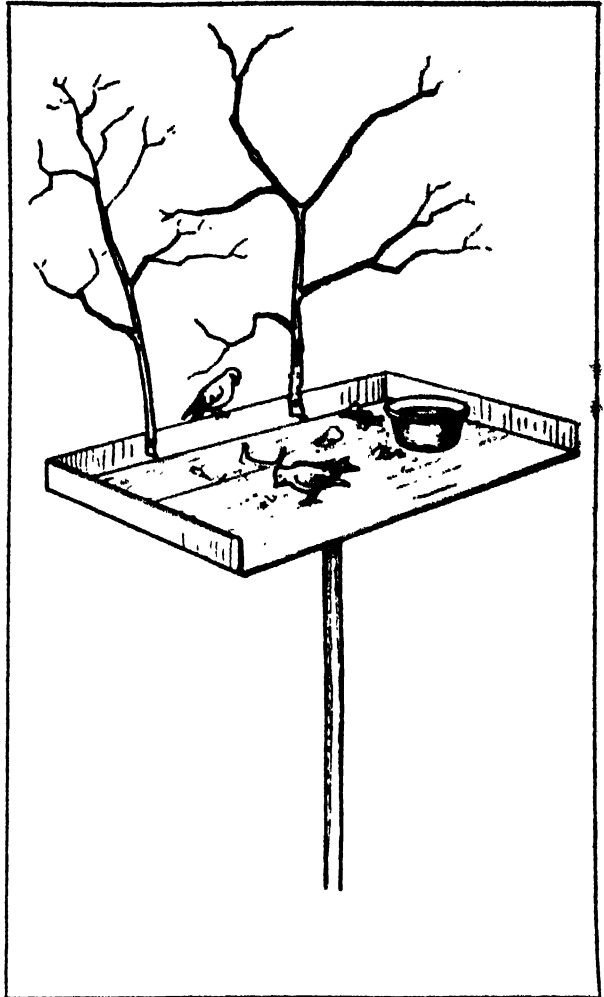


FIG. 2.—BIRD-TABLE.

Keep caterpillars. Clean out cages and feed.

Get many objects from fields, hedges, woods, seashore and greengrocer's, and put them together. Let the children take what they want, and arrange their own groups. Shells, stones, fruits, seeds, pictures of trees and flowers, the woods and the sea, animals and birds may all be collected and put together. The children love to sort them out into groups.

Other Activities (Fig. 3)

Collect stones, sea-shells, snail-shells, etc., and store them in bags to play with.

Play with snow. Slide on the ice.

Play with water, especially by the seashore, or by a stream. Make mud-pies. Make paper boats and float them on the water. Make boats of walnut shells, putting a match for a mast, and a piece of paper for sail. Float egg-shells, hollow things, and anything else. Try many things to see if they float or sink.

Put many different things into water, and watch what happens, e.g. sugar, salt, stones, sand, clay. Put salt or sea water into a soup plate, leave it for a few days, and look at it again. Put objects into a glass or vase full of water, and see what happens.

Mix red ink and water together. Hold the glass up to the light. Mix oil and water.

Blow soap bubbles. Get a good lather for this. Soap-flakes make an excellent one. Use wooden pipes, and put them into the water upside down. Blow some bubbles out-of-doors and watch them sail away in the breeze.

Play with clay and sand. Make bricks and marbles with the clay, colour them, and bake them.

See what a burning-glass does.

Make all kinds of shadows on the walls. Notice long shadows in evening, and little ones at mid-day.

Watch the weathercocks in the district. Make one, and also make windmills. Watch which way the weathercock points when the rain comes. Notice the clouds.

Watch for a rainbow when the sun shines during rain. Talk about sunsets and ask the children to look for them

when the sun sinks. Look for the moon in daytime.

Let the children play with glass prisms. They love the "lustres" from the old-fashioned glass chandeliers. Let them find the "rainbows."

Play with air-balloons. Blow up paper bags and burst them. Throw feathers into the air and blow them.

Play with drums, whistles, and trumpets.

Get a magnet and let children see it pick up nails, etc. Let them use it themselves.

Spin a colour-top.

Make weather-charts. (See Chapter on this.)

Draw and paint, or model different objects, such as shells or apples.

Tell children Nature stories. The town teacher may find it difficult in winter to take her Nature study in an interesting manner. For these teachers "stories told from appropriate books are better than any formal instruction" (Handbook of "Suggestions").

A Wide Choice

It is not suggested that all the things mentioned in this list of varied activities should be attempted. Each teacher has her own inclinations towards certain aspects of Nature, and it is to these she will naturally turn. For instance, one teacher may be much interested in pond life, and she will wish to keep an aquarium. Another may love pigeons, and will contrive to keep them for the enjoyment of the children. It is not possible to do or to keep everything mentioned in the list, but, nevertheless, the teacher should not be afraid of experimenting. She will certainly not regret doing so.

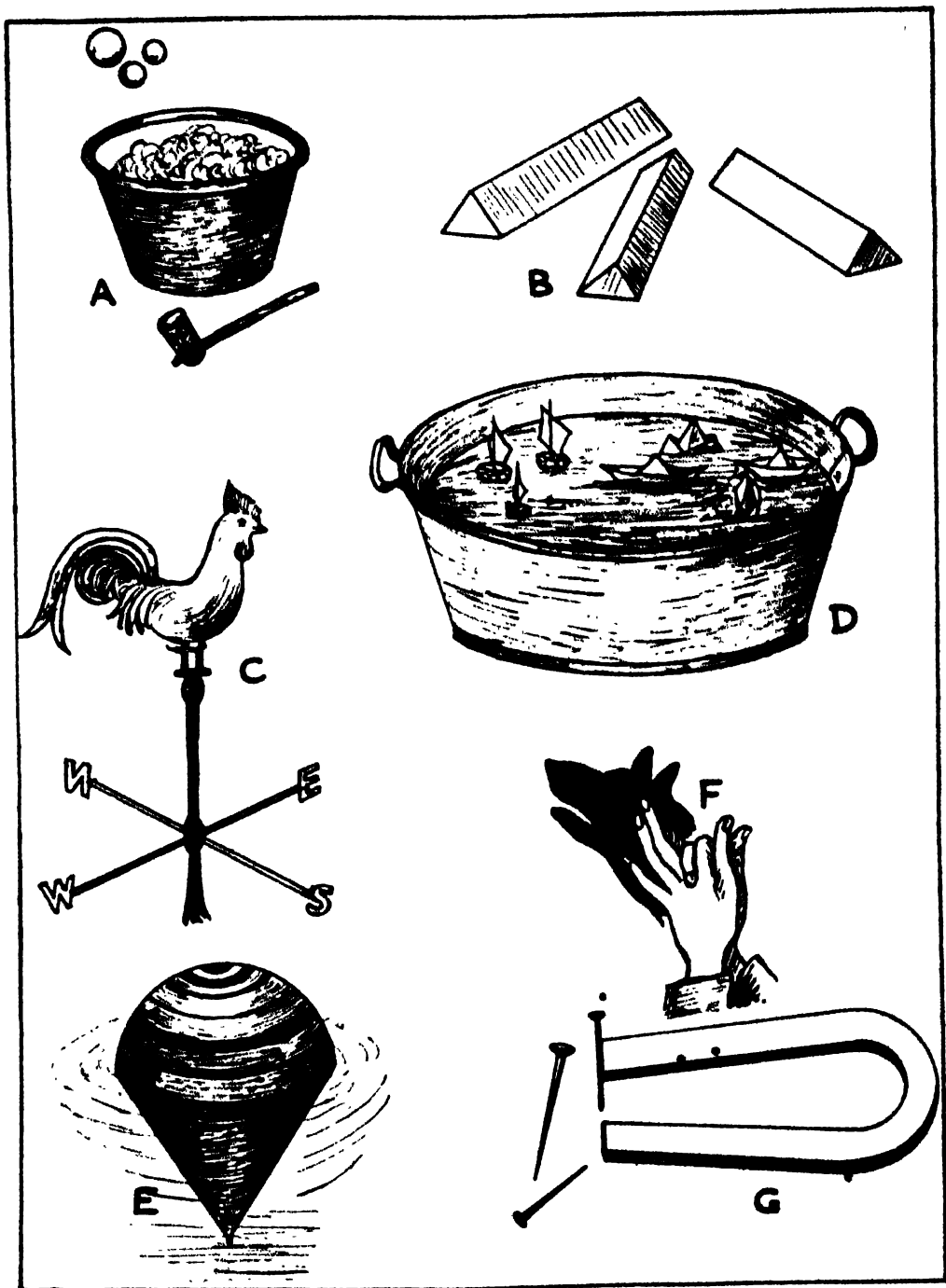


FIG. 8.—OTHER ACTIVITIES.

(A) Blowing Bubbles. (B) Playing with Prisms. (C) Observing Weathercock. (D) Floating Objects in Bath. (E) Spinning Tops. (F) Making Shadows. (G) Playing with Magnet.

CHAPTER III

SOME TYPICAL SCHEMES

How to Plan Nature Schemes. A Year's Scheme in Nature Study for Infants in an Urban School with Country near at Hand—in Full Detail. A Year's Scheme for a Town School near a Park, but not within Easy Reach of Country. Simplified Outline Schemes for Every Teacher.

THE Nature teacher in the Infant School cannot have an elaborately drawn-up scheme to follow. Her lessons are informal, depend much on the season and on the weather, and any scheme she makes is liable to be upset from day to day. She may, for instance, have planned to plant bulbs one day, but the time available for Nature may be unexpectedly taken up by examining with the children something of interest that one of them has brought. So she postpones her planting.

Nevertheless, she should have some sort of scheme in mind, and should look ahead as far as she can. Many teachers find this very difficult, as their knowledge of what Nature provides from month to month is scarce and inadequate.

For this reason the All-Round-the-Year Calendar will be found of the greatest help. With it the teacher can plan, with more or less certainty, schemes for months-ahead. With the list of Nature Study Activities to supplement the Calendar, she should never be at a loss either for a term's Nature course or for an emergency lesson.

A few typical schemes are shown, drawn up from the Calendar, and from the Activity list. Teachers can modify them to suit their own requirements, but, better still, can draw up their own with these as a guide.

A YEAR'S SCHEME IN NATURE STUDY FOR INFANTS IN AN URBAN SCHOOL WITH COUNTRY NEAR AT HAND

January

Tend bulbs in bowls.

Care for any flowers brought for decoration, e.g. daffodils.

Watch buds on twigs placed in vases.

Play with the snow.

Look for snow-tracks. (See Chapter on this subject.)

Supply bird-table with food and water (see Fig 4). Watch the birds that come to it.

If month is fine and warm, with no snow, go for a ramble to see what flowers can be found: groundsel, shepherd's purse, etc. Bring in young new leaves of honeysuckle for vases. Also hazel catkins.

Tell children Nature stories. Talk about the robin.

Germinate beans.

Take children into school garden to see the few things happening there—green spikes of snowdrops showing, and so on.

Play with stones, shells, etc.

Play with clay and sand.

Fill in weather-chart day by day.

February

Tend and watch bulbs in bowls.

Care for flowers brought for decoration.

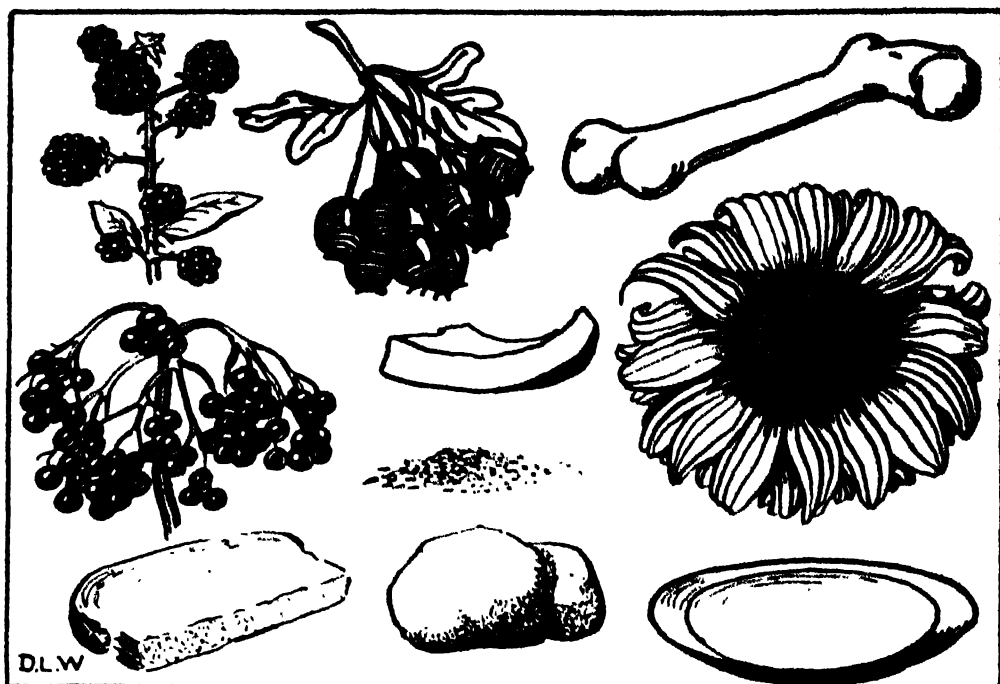


FIG. 4.—FOOD FOR THE BIRD-TABLE.

Berries, Bone, Coco-nut, Sunflower head, Seeds, Bread, Boiled Potatoes, and Water.

Watch twigs unfolding their buds in vases.

Watch bird-table and supply it with food.

Grow carrot tops in saucers of water.

Go for ramble to find ivy berries for the schoolroom, and any flowers. Visit the park to see the crocuses beginning to appear (in a warm season).

Find the red spikes on the hazel twigs. Shake the catkins and see the pollen fly.

Bring catkins of alder and birch, and see the difference between them and the "lambs' tails."

Watch for the first bee.

Find snails, now awakening from their Winter sleep (in a warm season), and bring them for children to see.

Listen to birds beginning to sing.

Talk about birds and their nests on St. Valentine's Day (February 14th).

Visit school garden.

Play with magnets.

Tell children Nature stories.

Fill in weather chart every day.

March

Tend and watch any flowering bulbs still in bowls. Plant those that are over in the school garden.

Care for flowers brought for decoration.

Watch twigs unfolding their buds in water.

Watch carrot-tops growing.

• Grow mustard and cress on wet flannel.

• Watch bird-table and supply it with food.

Go for ramble to find flowers, e.g. wood anemones, primroses, celandines, sweet violets.

Bring blackthorn and gorse blossoms to school if possible.

Visit school garden to see Spring flowers opening, especially the lovely daffodils and gay crocuses.

Notice flowers of trees, especially the red blossoms of the elm. Get children to bring some to school. (Many fall on to the road.)

Go to look for frog spawn in ponds. Start an aquarium, beginning with frog spawn, water weed, and a few water snails. (See Chapter on "The School Aquarium.") If a northern school, this probably cannot be done until next month.

Tell children to look for lambs in the fields.

Listen for the chaff-chaff, who returns to us this month. Talk about the birds who went away in Autumn, and now return in Spring.

Listen to singing of birds, especially the blackbird.

Talk about nest-building. Put out "lucky-bag" and put up a nesting-box in the school garden.

Watch the weathercocks in the district. Make one. Let children make windmills.

Fill in weather-chart daily.

April

Care for flowers brought for decoration.

Watch mustard and cress growing.

Go for ramble to find spring flowers, especially cowslips, if possible.

Make cowslip balls.

Visit school garden to see the many flowers now out. Smell them.

Plant seeds of annuals in school garden.

Bring "pussy-palm" to school for vases.

Watch trees unfolding their new leaves.

Talk about ash and oak, find two trees near and get children to watch which unfolds its leaves first. Teach rhyme.

Collect caterpillars for school cases. Give them fresh food daily, and clean out cases.

Tend aquarium. Watch tadpoles developing from spawn.

Arrange visit to a farm, if possible. Tell children all about it beforehand.

Listen for the first cuckoo. Tell its story.

Look out for the first young birds. Listen to spring song of birds. Watch for swallows.

Watch "lucky-bag" and nesting-box.

Watch for rainbow.

Play with glass prisms.

Spin colour tops.

Fill in weather-chart daily.

May

Care for flowers brought for decoration. There should now be many vases of these.

Go for ramble to bluebell woods.

Visit school garden. Watch seeds coming up. Water and tend them where necessary.

Watch bees at work.

Decide the winner in ash and oak race, and mark on weather-chart, so that children may remember and see if the fact in the rhyme they learnt comes true.

Tend caterpillars.

Tend aquarium. Watch water-weed growing, and see the bubbles rising from it when the sun shines.

Listen to birds singing and note

that songs begin to diminish at end of month. Teach rhyme about cuckoo. (See "The Cuckoo" in Chapter on Common Birds.)

Watch nesting-box.

Make bird-bath or put out enamel bowl for birds to bathe in.

Tell children to look at the gardens they pass on the way to school, and see which one is the prettiest.

Plant seeds of scarlet runner beans in the school garden.

Notice flowers of trees—the horse-chestnut, laburnum, hawthorn, etc.

Look out for many butterflies. Look for lady-birds. Look for ants and watch them scurrying to and fro.

Watch for birds carrying nesting material in beak, or carrying food to young.

Watch for swallows and swifts.

Fill in weather-chart daily.

June

Care for flowers brought for decoration.

Go for ramble to buttercup fields. Play at "Do you like butter?"

Visit school garden. Watch seedlings developing. Tend them carefully.

Watch other flowers developing in school garden. Watch bees, and butterflies.

Find spider's web and examine it. Watch a spider at work, if possible.

Tend caterpillars. Notice those becoming chrysalids.

Tend aquarium. Watch legs of tiny frogs developing, and tail shortening. Put piece of cork or wood on top of water so that they may rest there if they wish to.

Notice that birds do not sing much now. The cuckoo changes his tune. Listen for it.

Watch seeds of runner beans developing in garden.

Watch for many different kinds of butterflies.

Watch for many young birds.

Keep bird-bath filled.

Go for as many walks as possible to notice the flowers of June. Find wild roses. Talk of garden roses, and their beauty. Have some in school vases.

Find cuckoo-spit and talk about it. Show the children the little creature inside.

Make shadows on wall. Notice short shadows at mid-day, and long ones in evening.

Fill in weather-chart daily.

July

Care for flowers brought for decoration.

Go for ramble to the nearest common to see the heather coming into bloom. Listen to the bees there.

Go to hayfield. Play with hay.

Watch the flowers blooming from the seeds planted in April. Tend them. Note other flowers in school garden. Note the thick foliage of trees, and ask children to remember what trees looked like in January.

Watch bees and butterflies.

Tend caterpillars. Let children see a butterfly emerging from chrysalis, if possible.

Find a frog-hopper. Let children see it and tell them it was once the little creature in the cuckoo-spit. Make it hop.

Tend aquarium. If the tadpoles have become proper little frogs, let them go. Take them to a pond or wet ditch and leave them there. Clean out aquarium and buy one or two goldfish. (See Chapter on "The School Aquarium.")

Notice the silence in the bird-world now. See what birds may still be heard. Note the shrill, insistent cry of young sparrows.

Keep bird-bath filled.

Watch runner beans developing. Stake them when necessary.

Take children walking by pond or stream to see the flowers there. Let them play with the water. Make paper boats and float them. Look for dragon flies.

Make pond in playground with an old tray or old sink. Let children float many things in it, and also put in things that sink. Put objects into a full cup of water and see what happens.

Blow soap-bubbles out-of-doors on a sunny day.

See what a burning-glass does.

Let children stand under lime tree and listen to murmur of bees.

Look for young animals about. Talk about them.

Fill in weather-chart daily.

August

Care for flowers brought for decoration.

Go for walk to cornfields. Find flowers that grow there.

Tend flowers in school garden. Notice any that are forming seeds.

Watch bees and butterflies.

Tend caterpillars if there are still any that have not changed to chrysalis form.

Tend aquarium. Feed goldfish. Watch for tiny snails emerging from snail eggs.

Notice flowers of runner beans in school garden. Notice bean-pods forming.

Look for fruits forming on many trees.

Get buttercup seeds from the fields and let the children plant them in pots to see them grow.

Look for winged ants.

Notice house flies and blue bottles. Talk about them, and the harm they do to our food.

Keep bird-bath filled.

Talk about the cuckoo. Where has he gone?

Fill in weather-chart daily.

September

Care for flowers brought for decoration.

Go for a blackberry ramble, taking baskets.

Notice the dying off of summer flowers in school garden, and the coming of autumn ones, e.g. Michaelmas daisies. Look for any flowers forming seeds.

Bring poppy heads to schoolroom. Play with them as "pepper-pots."

Watch chrysalids daily to see if any will still provide the perfect insects.

Tend aquarium.

Pick runner beans from school garden.

Look for fruits forming on many trees.

Watch buttercup plants developing in schoolroom.

Notice the "daddy-long-legs." Talk about him.

Take children for walk to see what flowers may be found this month. Also find berries in the hedges, and bring them indoors for decoration.

Teach which berries may be eaten. All other berries poisonous.

Tell the time by dandelion clocks.

Blow thistle seeds about.

When the sunflower heads are finished cut them off and save them for bird-table.

Plant Roman hyacinth bulbs in bowls now, if wanted in flower at Christmas.

Notice the lovely gossamer in the mornings. Tell how it comes there.

Keep bird-bath filled.

Talk about departing birds.

Listen to the robin beginning to sing again.

Play with seeds of all kinds—large ones like broad beans, and small ones like oats, barley, maize. Buy pound of each (twopence or threepence a pound).

Story of harvest festival, with pictures. Play with ears of wheat. Crush grain. Plant grains.

Hang up seaweed brought from sea-side, and foretell weather with it.

Play with shells brought from sea-side. Talk about things seen there.

Fill in weather-chart daily.

October

Care for flowers brought for decoration. Bring sprays of berries, old man's beard, etc., for vases.

Go for ramble to see Autumn colouring of trees.

Try to catch leaves falling from trees. (For every leaf caught there comes a happy day in the following year !)

Hold bright leaves up to sunshine.

Bring acorns, "conkers," etc., to school. Talk about them, and play with them.

Play with seeds of all kinds.

Talk about the harvest festival. What was brought to church ?

Make necklaces of hips and acorns.

Play "aeroplanes" with sycamore seeds.

Visit school garden and see how many plants are dying right down.

Pull up old plants of annuals. Make bonfire. Divide out roots of perennials. Give children little pieces for their own gardens at home.

Go to park keeper and obtain cuttings and pieces of plants for school garden. Plant bulbs in garden.

Plant bulbs in bowls and pots.

Say good-bye to swallows.

Listen for robin. Tell why he fights at this season.

Find where ivy is flowering and take children to see the many insects there.

Grow an acorn in an acorn-glass.

Play with acorns, chestnuts, plane-balls, beech-mast, hazel nuts, sycamore keys, ash keys, and so on.

Tend aquarium.

Talk about squirrel, hedgehog, toad, frog, etc. Where do they go for the Winter ?

Fill in weather-chart daily.

November

Care of flowers brought for decoration.

Put up bird-table, and supply food and water. Hang up old sunflower heads. Go for ramble and bring back berries for the birds.

Play with acorns, etc. Make necklaces.

Visit school garden to see how bare it is now.

Plant bulbs in bowls at beginning of month, if not already done. Grow one or two hyacinths in hyacinth glasses to watch roots developing.

Watch acorn developing.

Tend aquarium.

Talk about evergreens. Bring some sprays to school for decoration.

Talk about our dogs and cats. They grow a thicker coat for winter.

Talk about hibernating animals.

How cosy they are now ! They know nothing of cold and hunger.

Notice flocking of birds. Long trails of starlings can be seen going to their roosting place at night. Watch birds on bird-table.

Talk about fog, frost, short days.

Tell Nature stories.

Fill in weather-chart daily.

December

Care of flowers brought for decoration. These will be few—but evergreen sprays may be used.

Talk about holly and mistletoe. The Christmas tree.

Tend aquarium. Do not put near the fire nor keep on the window-sill.

Go for walk in snow and look for snow-tracks.

Catch snow flakes and see crystals. Play with snow. Slide on ice.

Go for walk to find a few berries for bird-table.

Watch bird-table, and keep it well supplied with food and water. Clean when necessary.

Watch bulbs in pots and tend them. See the green spikes appearing. Watch the early Roman hyacinth coming into flower.

Find catkins on hazel and bring them to classroom.

Play with stones, shells, etc.

Play with clay and sand. Model marbles, etc., in clay, colour and bake.

Tell Nature stories. Talk about robin and other birds at the bird-table.

Hang up coco-nut for the tits. Watch them.

Fill in weather-chart daily.

This scheme is a typical one, founded entirely on the All-Round-the-Year Calendar and the Nature Activity List. The teacher will also supplement it by

letting the children draw, paint, model, and so on. She will teach them Nature rhymes and songs. She will, in fact, bring in anything that has a bearing on the season, or on the subject in hand.

The second scheme is for a Town school, near to a park, but not within easy reach of the country. It is not set out so fully as the first, to avoid much repetition, and is in terms instead of months.

A YEAR'S SCHEME FOR A TOWN SCHOOL NEAR TO A PARK, BUT NOT WITHIN EASY REACH OF COUNTRY

SPRING TERM

Care of flowers in vases.

Tend bulbs in bowls and pots.

Watch twigs in water.

Visit park to see buds swelling on trees, and early leaves opening.

Watch bird-table and supply it with food.

Go to feed gulls on Embankment (if London school.) Feed pigeons.

Sprout potatoes on window ledge. Grow carrot tops in saucers. Germinate peas and beans. Grow mustard and cress on flannel. Grow grass seed.

Play with stones, shells, clay, sand.

Notice chimney smoke on windy days and on calm days. Notice nearest weathervane. Make a weathercock. Make windmills.

Listen to birds, especially to starlings, who become very noisy in springtime, clucking and whistling, and making all kinds of queer noises. Watch their beaks becoming a brighter yellow week by week. Watch the cock sparrow growing his black bib.

Go to feed the ducks in the park.

Find out the nicest garden in the district (if there is one) and watch it on the way to and fro from school to see the changes there.

Look at flowers in florists' shops, and fruit and vegetables in green-grocers'.

Keep an aquarium with goldfish, snails and water weed in. If possible get tadpoles from friend in country, and watch development.

Buy pussy palm for schoolroom, or get some from friend in country.

Watch for rainbow. Play with prisms. Spin colour top.

Tell Nature stories.

Fill in weather-chart daily.

SUMMER TERM

Care of flowers in vases.

Visit park to see trees in leaf and flower, and to see flowers blossoming. Feed ducks. Look about for grey or red squirrels.

Tend aquarium.

Put up "lucky-bag" for sparrows. Watch them fetching material for their nests. Find out where one is building, (too high for children to disturb inmates) and see sparrows flying to and fro with nesting material.

Buy eggs of silkworms. Watch and tend caterpillars that hatch out.

Watch any flowery garden in district.

Watch florists' shops, greengrocers', and fruit barrows. •

Talk about warm weather, longer daylight, hot sun.

Make shadows on wall. Notice shadows in playground in morning, at noon, and after afternoon school.

Get some country friend to send bunch of budding bluebells for class-room. Give each child a few to take home and put into water. Ask how

they are getting on, each day. Smell them.

At beginning of term, plant seeds in pots or window boxes. Watch any bees or butterflies that come.

Plant seeds of climbing nasturtium in a pot and let it climb all round window. Provide string for it.

Get friend to send buttercups. Do same with these as with bluebells.

Put out a bowl of water in playground for sparrows. Watch them bathing.

Make a pond of some sort in the playground (an old sink or an old tray will do) and let children play with water, floating some things and sinking others.

Blow bubbles out-of-doors.

Play with air-balloons.

See what burning-glass does.

Talk about house flies and blue bottles. Lids on dust-bins, etc., prevent eggs being laid near houses.

Fill in weather-chart daily.

AUTUMN TERM

Care of flowers or berries in vases.

Visit park to see trees turning colour. Also notice acorns, "conkers," etc.

Collect acorns, "conkers," etc., and play with them. Play with other seeds, both large and small.

Get friend to send ears of wheat. The farmer, the miller, the baker. Pictures of cornfield, etc. Crush grain into flour. Plant grains.

Look for flowers in window-box forming seed. Play "pepper-pots" with poppy heads. Make necklaces with acorns. Hold up autumn leaves to sunlight. Play "aeroplanes" with sycamore seeds. •

Keep bird-bath filled.

Watch silkworms weaving cocoons. Wind silk off.

Plant bulbs in bowls for early flowering.

Grow acorns in acorn-glasses.

Talk about squirrel (if any tame in town or park). Tell his story. Tell story of other hibernating animals.

Visit park to see what trees still retain their leaves (evergreens).

Watch florists' shops and street barrows.

Talk about dogs, cats, horses. All grow thicker coats for winter.

Put up bird-table at beginning of November. Keep it well supplied with food and fresh water. Hang up coconut to tempt any tits that may be in the district.

Talk about fog, frost, short days, snow, etc.

Buy holly and mistletoe. Arrange them in vases. Talk about them. Talk about the Christmas tree.

Tell Nature stories.

Fill in weather-chart daily.

As in the first scheme, the town teacher like the country teacher should supplement her Nature Study with pictures, objects of all kinds, stories, modelling, painting, etc. She should also, if possible, arrange for a friend to send her such things as bluebells, heather, when in season. It may be impossible to arrange for a day in the country with her children, but at any rate the fullest possible use should be made of the nearest parks.

The two schemes given will be the kind needed by the majority of teachers. They will also act as guides for the teacher who lives right out in the country (who will be able to use the first scheme in an even wider way) and for the teacher who lives in a slum or mining area (who will be

able to make use of the second scheme in a narrower way). The teacher who lives by the sea will find the seaside section in the All-Round-The-Year Calendar useful in drawing up her schemes.

For any and every teacher the following simplified outline-schemes state shortly what she should do throughout the year, the limitations of her abilities and surroundings deciding the scope of the work.

Spring

Grow everything possible in the schoolroom. Have the flowers of the season in vases and bowls. Have a bird-table. Note any insects around. Keep an aquarium or pets of some kind. Keep caterpillars of some kind. Play with nature-objects. Note weather. Go for country or park rambles.

Summer

Go on growing things, either in school garden, window-box, or pots. Keep vases filled with season's flowers. Put out bird-bath. Watch the nesting of birds in progress. Note any insects found. Tend aquarium or pets. Tend caterpillars. Play with nature-objects. Note weather, shadows, sunlight, etc. Go for country or park rambles.

Autumn

Bring in Autumn leaves. Note seed-ing plants. Play with seeds, large and small. Talk of harvest festival. Keep vases filled with season's flowers or berries. Talk about birds. Talk about animals and their preparation for winter. Tend aquarium or pets. Note weather, snow, fog, frost, etc. Talk about evergreens. Go for country or park ramble.

CHAPTER IV

MAKING FRIENDS WITH THE BIRDS

The Bird-Table. How to Make One. A Cat-proof Table. Food for the Bird-Table. Bird Visitors. The Bird-Bath. Coco-nuts for the Tits. Nesting Boxes. "Lucky-Bags." The School Robin.

NO matter where a school is, in the heart of the country or the midst of a town, by the sea, high on the hills, or lost in a slum, there are always birds around. They may be limited to a very few kinds, or they may be so many that it is almost impossible to keep count of the different species.

Children should be shown how to make friends with the birds. They should learn this at as early an age as possible, for the natural cruelty of children is often turned towards birds, and stone-throwing, nest-robbing and so on, are very easy. It is of little use to punish children for this. The only real remedy is to awaken in them a feeling of friendliness for birds and animals. This can be done in many ways.

The Bird-Table (see Fig. 2)

First of all, every school can have a bird-table, put in the school garden or playground, out of the usual run of cats. If cats are very troublesome, there is a special kind of table that can be erected, which will be dealt with later.

The table consists of a pole with a flat piece of wood on the top. The elder boys can easily make a fine one in the handwork class. Anyone, even a small child, can make one that will

serve its purpose. Drive the pole or stake into the earth so that the table is level and steady.

If the big boys are making the bird-table, get them to put a rim round the edge on the four sides, so that crumbs and seeds will not easily blow off. It is often convenient to have a zinc slab on the top of the table so that it may be slipped out and cleaned under the tap when necessary. If this is provided, put rims on three sides only, leaving the fourth so that the zinc slab may be slipped out easily.

Sometimes there is a stump of a tree left where one has been felled. This makes a very good bird-table, and should be used if it is in a convenient position.

A cat-proof table can be made outside the window. Get a flat piece of wood and hinge it to the sill if it is a wooden one. If not, a strip of wood must be nailed firmly to the wall underneath, and the table hinged on that. It hangs down against the wall when not in use. When in use, get a light bamboo stick, the right height, and, lifting up the flap, rest the table top on it. This will easily bear the weight of bird visitors, but a cat leaping on it will send the wood flap down against the wall, and give the cat such a fright that he is not likely to intrude again.

Food for the Bird-Table (see Fig. 4)

The table may be kept well supplied with household scraps. It is a mistake to think that birds only like crumbs. They will eat cold potato, and will pick the peels of potatoes that have been boiled in their jackets. They will eat porridge, bits of fat, rice pudding, bacon rind, seeds, soaked dog biscuits, berries, and most other things in the way of eatables. The children may each bring little offerings to the table, and spread them there.

A very important part of the bird-table is the jar or saucer of fresh water daily. It is in frosty weather that this is so greatly appreciated by the birds. They cannot find their usual water supply then, for puddles and ponds are frozen, and in very hard weather the streams are frozen too. So they are glad to find water on the bird-table. Let the children change it two or three times a day in bitter weather, for it soon freezes. Warm water, of course, lasts longer without freezing.

Twigs nailed at the back of the table make good perching places for the birds, and they look very pretty standing on them, waiting for a

chance to hop down among their friends.

Save the old sunflower heads, for many seed-eating birds like these, and will come for them. The children delight to see them perched on the heads, busily pecking. Ears of corn are also appreciated, and millet sprays, which the sparrows and chaffinches love. Berries are liked, and the missel thrush will be pleased to see the Christmas mistletoe hung out for him, for he likes the sticky berries. Winter rambles may sometimes have for their objects the finding of berries for the bird-table.

A little experimenting will soon show what the birds like most, and the children will vie with one another in bringing supplies for the table.

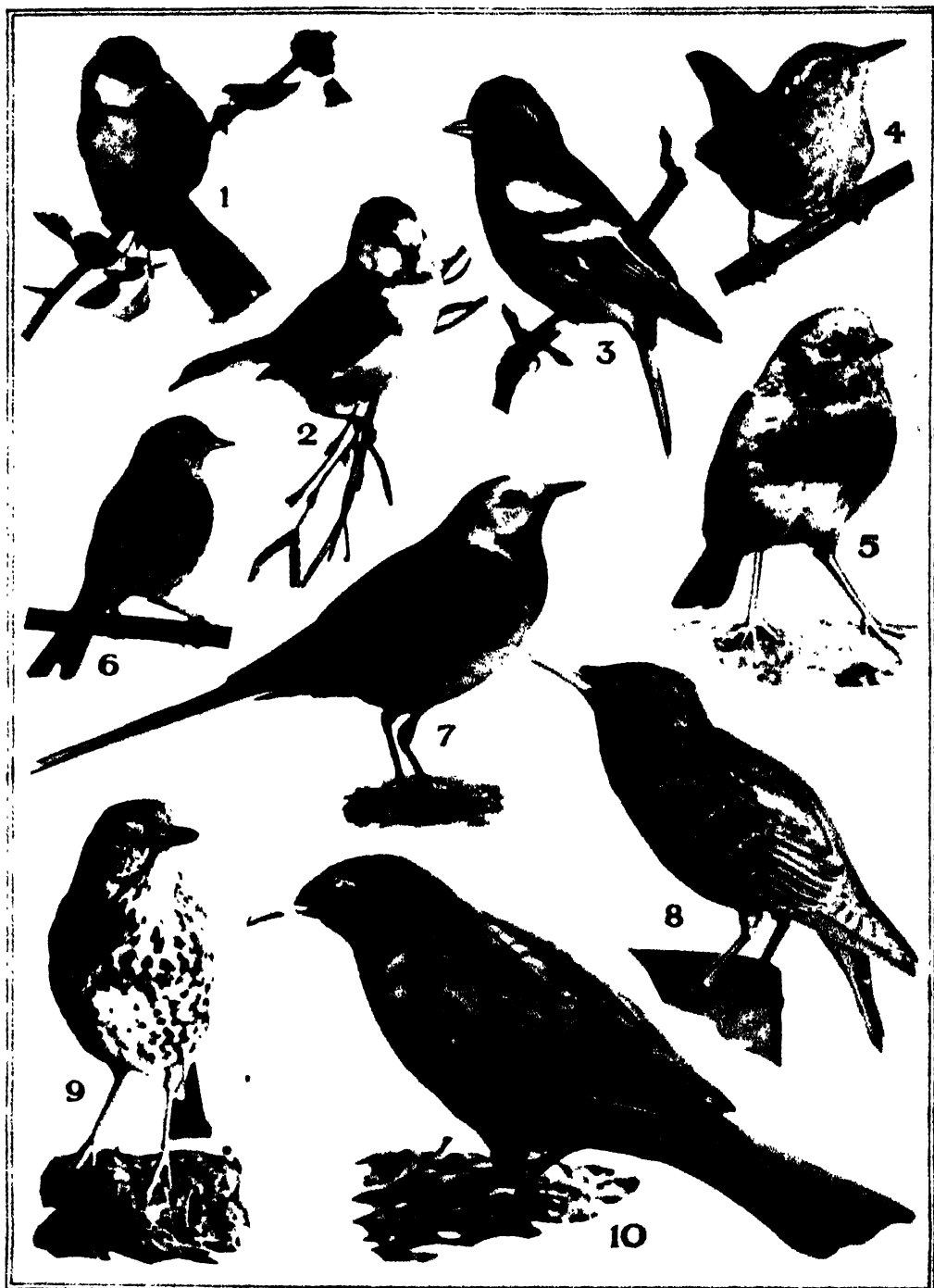
It must occasionally be scraped clean. If there is a piece of zinc for lining, it can easily be slipped out and scraped under running water.

Bird Visitors

A bird-table is a constant source of pleasure to both teacher and children. The habits of the birds are easily studied—the greed and excitability of the starling, the pertness of the robin, the quietness of the thrush, the sociabi-



Fig. 5.—TIT AT COCO-NUT.



Drawn by M. H. Crawford and Oliver G. Pike

BIRDS THAT WILL COME TO THE BIRD-TABLE.

1. Great Tit

2. Wren

3. Pied Wagtail.

4. Blue Tit

5. Robin

6. Starling

10. Blackbird.

7. Chaffinch

8. Hedge Sparrow

9. Song Thrush.

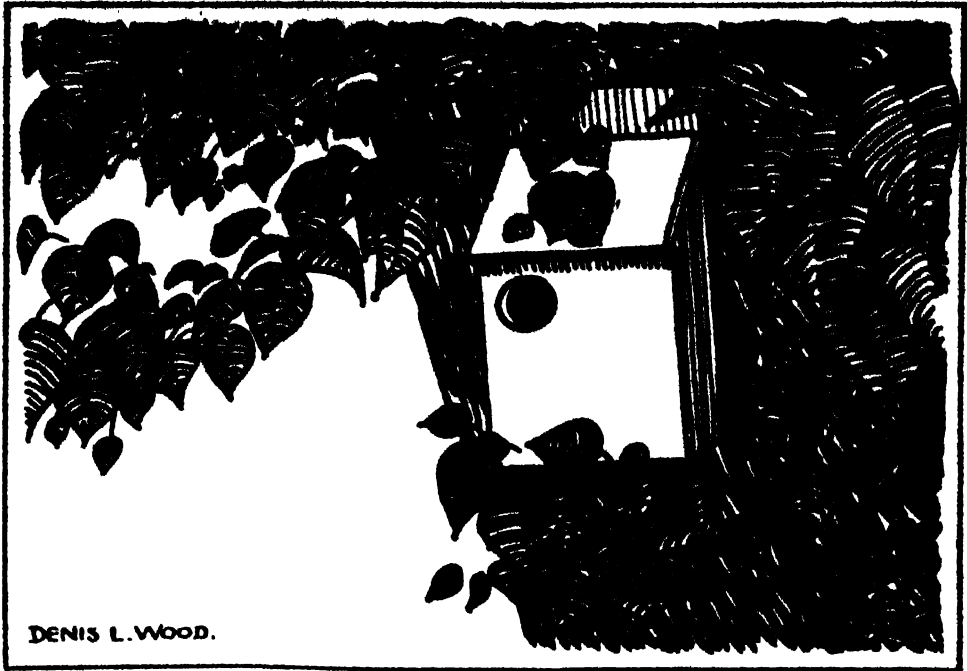


Fig. 6. —NESTING-BOX IN TREE.

lity of the sparrows, and so on, are all clearly seen. Besides these well-known visitors, chaffinches, greenfinches (who love sunflower seeds), blackbirds, hedge sparrows, and tits will probably come. Perhaps an inquisitive jackdaw will fly down, too, or a pretty wood pigeon.

Many of the children will be so pleased with the table that they will erect a rough one in their own gardens or yards at home. It is certain that the child who does so will regard the birds as friends and not as something to aim stones at. The teacher should always show great interest in the child's table, asking daily after it, questioning him on the kind of birds there, what they do, how many come, and so on.

It is so easy to have a table that it is surprising that every school does not possess one. It may happen that in a

district where the birds are very timid the bird-table is not at all well patronised at first—but a little patience, and a steady supply of food, will eventually overcome the shyness.

The Bird-Bath

Every school can put out a round enamel bowl or dish in the garden or playground for the birds to splash in during the summer. They delight in this, and the children love to watch them splashing in the water.

In country schools a little shallow pond might be made from an old sink, with annuals such as virginia stock, planted round the edge. The water must not be too deep.

Coconuts for the Tits (Fig. 5)

Hang up a coco-nut for the tits in the winter-time. They love this, and

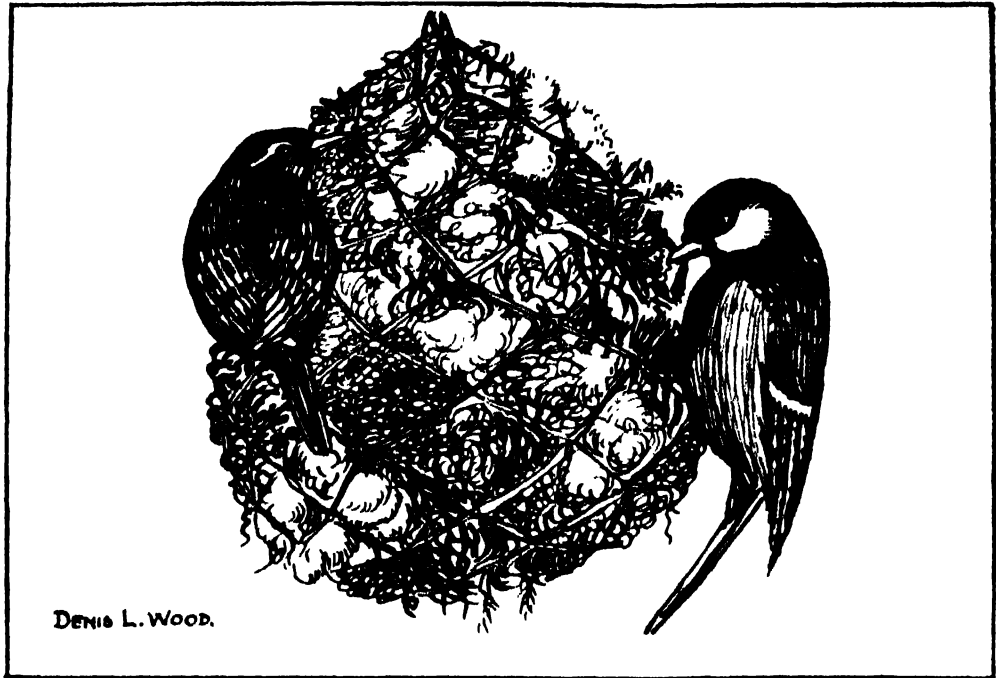


FIG. 7.—BIRDS PICKING AT "LUCKY-BAG" FOR NESTING MATERIAL.

will come and swing on it a hundred times a day, pecking hard all the time. It is best to hang up a whole coco-nut with the ends knocked out, rather than two halves, as these soon become bad. The tits also like Brazil or other nuts hung on bits of string. These might be hung to the bird-table, and the children will enjoy seeing the tits pull up the nut "hand over hand" to eat it, or hang precariously on the string upside down whilst they peck at it.

Bones and bits of fat hung up will also attract the tits. Starlings love these, too, and will go mad with joy if a lump of suet is put on the table for them.

Nesting-Boxes (Fig. 6)

In the spring-time the teacher can put out nesting-boxes, and the children can help her to find likely places,

fairly well hidden and tucked away. These boxes may either be bought at naturalists' shops, or may be made by the elder boys. It is best to buy the kind that has a lid to lift up, as it is then easy to see if any bird has begun building—and it is also easy to clean out the box, once it has been used.

The tits are very fond of nesting-boxes, and will often nest in them year after year, bringing up large families of fluffy youngsters, a real joy to every child watcher. They will also nest in hollow coco-nuts whose ends have been knocked off.

Robins will nest in any old can, kettle, or saucepan. If there are plenty of robins about the school garden the teacher should try the experiment of placing an old can in a hidden corner somewhere out of the

way of cats, and see if the robins will find it and build in it.

Here are some interesting remarks on nesting-boxes, reprinted by kind permission, from the "Countryside Leaflet," for March 1917.

"As to the size and shape of nest-boxes, birds do not seem to be at all particular. I have seen them rearing broods with, apparently, equal satisfaction, in a blacking box with red and yellow labels, a model white wooden cottage with red roof and green blinds, plain wooden boxes, or boxes painted green and brown, hollow stumps with bark, and stumps without, flat-roofed and sloping roofed, round and square, any kind of box, in fact. In the matter of space, no nest-box should be too small, I

think, to hold about a quart, even for the smallest birds, and for the larger birds in proportion. No bird needs a perch at the entrance, and it is dangerous for two reasons. It provides enemies and rivals with a means for attacking the nest and waylaying the inmates, and by tempting the birds themselves to loiter about the entrance, causes them to attract the attention of enemies.

"The size of the entrance is im-

portant. For the smaller tits, and other very small birds, it should be no more than $1\frac{1}{2}$ inches across, and for the great tits and tree sparrows, not more than $1\frac{1}{2}$ inches across. Every $\frac{1}{2}$ inch over this will suit a new class of tenant, up to the brown owl or jackdaw, for whom $4\frac{1}{2}$ inches is ample. For thrushes I have found a wooden

railing about $1\frac{1}{2}$ inches round the top of a small flat-topped nesting-box for smaller birds to prove attractive.

"I think that the entrance should face north-east if possible, because driving rain comes least often from that direction, but the birds do not seem to think about this. Also it is good for the top of the box to project in front, both to protect the entrance, and to make it less

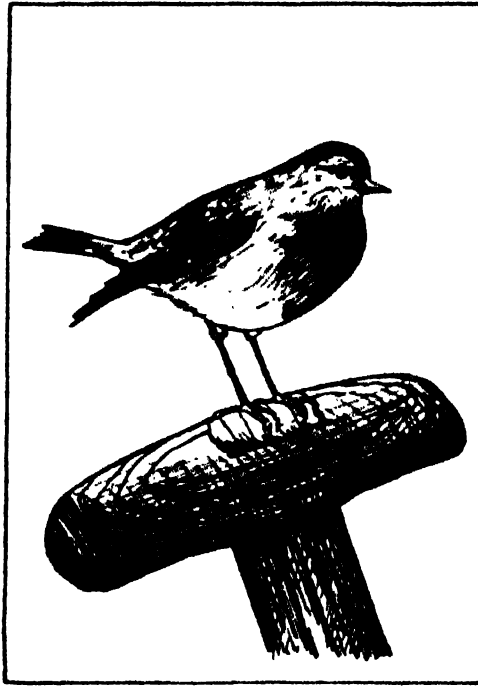


FIG. 8.—THE FRIENDLY ROBIN.

easy for enemies to investigate the nest from above. The most important point is the position of the box, which must be, as far as possible, out of the reach of cats, rats, and mice. If any of these visit the box after the birds have decided to use it they will desert it at once. If placed on a trunk, the best position is where the trunk slopes downwards and backwards. Then the upper part of the trunk will be over the nest, and

shelter it, while the slope is awkward for climbing animals. In a state of nature, some birds, like the great spotted woodpecker, always seem to select a trunk that slopes in this way. When nest material is hung up in bundles near the nest, the birds seem to be glad to use it. A lid, or other means of opening the box in order to inspect the contents, gives it added interest, and the birds soon become accustomed to it."

"Lucky-Bags" (Fig. 7)

Get a net bag with a small mesh, and stuff it full of moss, hairs, fluff, wool, short bits of string, small soft feathers, and so on—anything that will serve as lining for nests. Hang it up where the children can see it, and watch the birds come to it in the nesting season. They will soon discover the treasure—and it really is treasure to them—for it is the soft hairs and feathers, the bits of wool and fluff, that they find more difficult to get than the outer parts of their nests. Brush the school dog in the playground and watch the sparrows eagerly picking up his hairs afterwards! See a host of small birds quarrelling over a soft feather in the hen yard!

Birds of all kinds will come to the "lucky-bag," and pull at its contents, flying off again with wool, fluff or hair in their beaks. Once the bag is discovered it will be haunted all day long by different birds. Children love to

bring odds and ends for the bag. It pleases them, too, to think that the birds' nests around are lined with the hairs of the school dog, or made cosy with half a dozen downy feathers found on their own eiderdowns or pillows at home!

***The School Robin* (Fig. 8)**

Every urban or country school possesses a robin in the school garden or playground—or could possess one, if the children were encouraged to tame him. He is a bold bird, very friendly, and the golden rule with him is not to make any sharp movement when he deigns to come near. Tell the children to stand quite still, make no noise, and see how near he will come, and which child he will come nearest to. If he likes to come to the window-sill, put crumbs for him there, as well as on the table. It is easy to tame him, and it will not be surprising if he becomes friendly and fearless enough to fly in at the classroom window or door and make himself at home in the school-room. The next step is to teach him to take bits of biscuit from someone's hand.

When the teacher does things of this sort, she is doing far more than taming a robin; she is laying the foundation for an understanding of, and sympathy with, smaller, helpless things; she is teaching the children self-control; she is giving them an appreciation of Nature which will be enduring, and may grow to great things.

CHAPTER V

HOW TO KNOW OUR COMMON BIRDS

Our Residents and Migrants: their Appearance, Songs, and Eggs.

IT is essential that the teacher should have a good reference book of birds, in which they are shown in colour, so that she may herself be sure of naming them correctly. (See Bibliography at end for bird books.)

It is also helpful if she has a good wall chart showing the common birds in good colouring. The children study these consciously and unconsciously, and soon find it easy to recognise the different birds. After a short time they become very familiar with the different species, and can even detect one thrush from another, a feat which may be beyond the teacher!

A list is given of our common birds and their songs. It is a short and simple one, and the teacher is urged to supplement it by a good book on birds. Birds marked "*Resident*" are those always with us. Those marked "*Migrant*" are not, but leave us for a certain period every year.

The House Sparrow. (Resident)

To be seen everywhere. He is a sooty-looking fellow in town, but out in the country he wears a pretty suit of brown and grey. The male has a black bib under his chin, but his wife has not. The head is slate-grey, cheeks and chest are soft pale-grey, and the wings bright chestnut-brown with one white bar on each. Sparrows

eat practically anything. They build their nests anywhere about a house—under the eaves, in rain-pipes, and so on. The eggs are dull white with blackish markings. The cry of sparrows sounds like "Chissic! Chissic!" or "Philip! Philip!"

The Hedge Sparrow (Resident)

This bird is placed next to the House Sparrow because many people have difficulty in identifying one from the other. The Hedge Sparrow, Shuffle-wing, or Dunnock does not belong to the family of the House Sparrow, and it is stupid to call him by the name of Sparrow. He probably earned his name from his likeness in colouring to the brown of the ordinary Sparrow, for he is a small brown bird, about the same size, but with no black markings at all. His beak is not that of a seed-eating bird, like the House Sparrow's, but is thin, like a Robin's. He flicks his tail rather like a Robin does, and shuffles his wings so much in the spring-time that he is sometimes called Shuffle-wing.

He has a bright little song which he sings all the year round. It is short and high pitched, but very pretty. His call is a high "Peep! Peep!"

His nest is built in the hedges, as his name tells us, or in bushes and banks. His eggs are among the very loveliest of all birds, for they are a

beautiful blue, bright and pure. A cluster of these eggs in the softly lined nest is an enchanting sight, and one that never fails to delight a child.

The Robin Redbreast (Resident)

Not much need be said of the Robin, for he is too well known. He stands proudly on our Christmas cards, an emblem of friendship, and every child should regard him as friend. His bright black eyes and red breast single him out from the other birds, and his ringing song, rich and loud, can be heard nearly all the year round. His call is a sound like "tick-tick-tick" or a high "Peep!"

Robins are insect-eating birds, and when the winter comes each robin likes to have a "beat" of his own so that he may get enough to eat. This is why robins so often fight in the autumn. All summer through they have lived together amicably enough in the garden, finding plenty of insects. When the cold days come, each robin wants to stay where he is. He does not want to find a new beat, especially if he has been brought up in the garden, or has nested there in the spring-time.

Then fights begin—father against son, and husband against wife. The victor stays where he is, the vanquished flies off to find another spot for the winter. It is better that the robins should do this than perish through overcrowding in one place.

The nest is built in any old can, kettle or object belonging to mankind; also in holes in walls or banks. The pretty eggs are grey-brown, speckled with light red.

The Blackbird (Resident)

This is another well-known and

unmistakable bird, for his glossy black coat singles him out easily from the others. He is larger than sparrows or robin, and we cannot help noticing his bright orange bill. His wife is not black but very dark brown, and is often mistaken for a song thrush. Her bill is brown, not orange.

The Blackbird sings very beautifully. His melody goes on and on, and he seems to be listening to it himself, as he sings. He does not repeat his phrases two or three times as the Song Thrush does. Sometimes he ends with a funny, explosive sound. His mellow flute-like song is at its best in the early mornings and evenings of spring. He calls "tuck-tuck-tuck" very quickly and discordantly when alarmed.

He nests in bushes, trees, or hedges, and the eggs are greenish-white, speckled with red-brown. He lines his nest with mud, and puts another softer lining on that, usually of grass. Young Blackbirds are like their mother, dark brown, and they do not have their orange bills until they are twelve months old.

The Song Thrush (Resident)

The Song Thrush is not quite so large as the Blackbird. He is a brownish bird, with his underparts buff-white, well freckled with black-brown spots. His song is very levely, but not quite so mellow as the Blackbird's. He repeats his phrases two or three times.

"He sings each song twice over,
Lest you should think he never could
recapture
The first fine careless rapture."

The children will be interested to see the Song Thrush hunting for his

food, which is made up of worms, slugs, snails (whose shells he breaks against a stone, the "thrush's anvil"), and any insects. He makes little runs on the grass, stopping now and again with his head on one side, as if he were listening. He is really watching very intently.

The nest is built almost anywhere, in a tree, a hedge, or a wall. It is always lined with mud, and has no inner lining as the Blackbird's has. The eggs are blue, with black spots.

The Missel Thrush (Resident)

Many people cannot tell the difference between the Song Thrush, and his near cousin, the Missel Thrush. The Missel Thrush is the larger of the two, and lighter in colour than the Song Thrush. He also looks more clumsy—not so well-knit as his cousin. He is grey-brown, with paler underparts, which are freckled with dark spots, fan-shaped.

He sings very well, and is often heard in the rain and wind, singing for all he is worth. For this reason he is sometimes called the Storm Cock. He will even sing in a blizzard! He builds his nest in a tree, as close to the trunk as possible. The eggs are pale green, spotted with purple-brown.

The name "Missel Thrush" is given to him because he is fond of mistletoe berries. He eats these, and then wipes his beak on a branch, leaving one or two sticky seeds there. These send out suckers into the tree, and thus a new mistletoe plant is started.

The Chaffinch (Resident)

The Chaffinch is a handsome little bird, about as big as a sparrow, and always looks very busy as he hops

about among the other birds. The cock has a pretty pink-chestnut breast, a slate-blue head, and white bars on his wings which are very clearly seen when he flies. His wife has no bright breast, and is often mistaken for a sparrow, but her bright white wing-bars distinguish her, as well as her different shade of brown.

The pretty nest is found in hedges, or in the fork of a tree. It is very neatly made, and often decorated with bits of paper or scraps of pale bark. The eggs are green-blue, mottled and streaked with red and purple-brown.

Many country children will know the Chaffinch by the name of "Spink," given to him because of his sharp cry of "Spink" or "Pink." He has a pretty rattle of a song, ending with "little dee-ar."

The Bullfinch (Resident)

The Bullfinch is a beautiful little bird with a salmon-red breast, and a velvety black head. His wings, throat, and tail are also black. He is not so often seen as the Chaffinch, but sometimes in the spring-time he comes into the garden to peck off our fruit buds, and we see him then.

His nest is built low down in trees or hedges, and the eggs are dark blue-green, mottled and streaked with red and purple-brown. His song is soft and sweet.

The Goldfinch (Resident)

The Goldfinch is very pretty. His head is red, white, and black, and he has a bright yellow band across his black wings. He loves thistle seeds, so if a few seeding heads of thistles are tied on to the bird-table, he may pay a visit to the school garden. He

is a dainty, sprite-like bird, very light on the wing.

The nest is often built in an orchard tree, and the eggs are blue-green, spotted and streaked with red and purple-brown. The song is loud and sweet, and the call-note a pretty "twit-it-it-it."

The Greenfinch (Resident)

Another gay little bird is the Greenfinch, but as his main colouring is green, he is not so noticeable as some of his cousins. He is not such a neat-looking bird as the Chaffinch, and his beak is rather heavy, and is flesh-coloured. He has lovely yellow edges to his wings, and a bright gold patch at the base of his tail, showing plainly when he flies.

His song is not so loud as the Chaffinch's and his call-note is a long-drawn "dwee." The nest is built in a thick hedge or on the bough of a pine tree. The eggs are green-white, speckled (mostly at the wide end) with red, brown, or purple.

The Wren (Resident)

The Wren is a little bird, smaller than the sparrow. He is red-brown, and has rather a long beak. He wears his tiny tail cocked up, and has rounded wings. He is often called "Stumpy" because of his small tail. He is not shy or timid, but as his daily business takes him into all sorts of hidden nooks and crannies, people often think he is.

He has a loud, ringing song, sweet and sudden. Sometimes he makes a queer noise, like a clock being wound up. The Wren is very fond of building nests, and before he chooses one for his eggs, he builds quite a number, often unfinished and unlined. He builds in

ivy, in a grassy bank, against a tree-trunk, or in a hole in the wall. The eggs are white, spotted with red.

The Willow Wren (Migrant)

A better name for this pretty little bird is Willow Warbler. He is almost as small as the Wren, his back is green, and his underparts a soft green-yellow. He comes to us in April, for he is one of the migrants, and leaves in September. He has a dear little song, quite unmistakable when once recognised. He begins on a high note, and sings a short way down the minor scale—"twee-twee-twee-twee, tway-tway-tway!"

His nest is usually built on the ground. The eggs are white, faintly speckled with red.

The Whitethroat (Migrant)

Both the Greater and the Lesser Whitethroats come to our gardens. They are grey-brown birds, with very white throats and chins. The Greater Whitethroat has a confident little song, short and bright. The Lesser sings rather like the Chaffinch. Both are migrants, coming to us in the Spring and leaving us in September.

The nest is built low down in hedge, bush, or bramble-patch, and the eggs are green-white, with grey-brown spots, if a Greater Whitethroat's, and creamy-white, marked with brown and grey, if a Lesser's.

The Pied Wagtail (Resident)

Most people know the Wagtail when they see him, because of his habit of swinging his long tail up and down. He runs nimbly about on the grass, and is a most gentlemanly little bird

in his dress of black and white. Sometimes he is called the Water Wagtail because of his fondness for paddling in water, or catching the flies that hover over streams and ponds. He has a warbling song, loud and quick. The call-note is "Chissic! Chissic!"

The nest is built in holes in walls and banks and the eggs are grey-white thinly speckled with dark brown and grey.

The Tits (Resident)

There are three common Tits, any or all of which we may expect to see swinging on our coco-nuts. The first is the Great Tit or Ox-Eye. He is a bold, handsome bird, as large as a Sparrow, bigger than the other Tits. He can be singled out from them by his long black waistcoat. His back is green, his breast yellow, head and collar black and cheeks white. His tail is slate-grey. His call is rather like the Chaffinch's—"Pink! Pink!" and his song is curious, consisting of two notes rasping up and down, sounding like "Tea-cher-tea-cher-tea-cher-tea!" A prettier song is his "Tzoo-tzoo-werry-tzoo-tzoo-werry tzeet-tzeet!"

The Blue Tit is not so large as the Great Tit, and may be known by his bright blue head, white cheeks, and dark line passing through his eyes and round his neck. His back and wings are green-blue, and underneath he is yellow. His cheerful tinkling song is "Pim-im-im-im-im!" He also sings "This is it, this is a bud!" as he sits on our budding trees in the spring.

The Coal Tit is not so common as the others, and may be recognised by the big white spot at the back of his head and nape of his neck. He is brown-grey above, and grey-white be-

low, with a black head and throat. His song is a loud "if-he-if-he-if-he!"

All the Tits like to build their nests in a hole somewhere. They will often build in the nesting-boxes provided for them. The eggs are white, with red-brown spots.

The Starling (Resident)

The Starling is very common, and is certain to be one of the first birds to come to the bird-table. He is very beautiful when seen close by, for his feathers have a lovely sheen of green, blue, purple, and violet. He is the size of a Song Thrush, but is not very graceful because his tail is too short. He always goes about with others of his kind and talks and squabbles noisily. His song is a mixture of curious noises, mingled with the notes he has heard from other birds. He gurgles and snaps, whistles and clicks, and loves to stand on a chimney pot or roof quivering his wings as he sings.

He builds his nest in any convenient hole, in chimneys, trees, walls, or cliffs. The eggs are a pretty pale blue.

The Skylark (Resident)

Most children know the Skylark and have heard him singing his endless song up in the sky, but very few recognise him when on the ground. He is as large as a Song Thrush, and brown in colour. He has a little crest of feathers on his head which he often raises.

The nest is built on the ground, and the eggs are dull white, thickly mottled with brown.

The Yellow-hammer (Resident)!

The Yellow-hammer, or Yellow Bunting, is a gay bird, with head, neck, and

underparts of bright yellow streaked with dusky brown, and upper parts of chestnut. He is the bird who says "Little bit of bread and no cheese" in the hedge-tops, a hundred times a day. His nest is built on or near the ground, and the five eggs are brown or purple-white, scribbled over with dark red and grey. The "writing" on the eggs is supposed to say "Please leave my eggs alone!"

The Spotted Fly-catcher (Migrant)

We have this little grey-brown bird only for a short time every year. He is not really spotted. He often comes to the garden, sits on a post and watches for flies. As soon as he sees one he darts after it, and then returns to his post again. He sings a soft little song and calls "Zit! Zit!" He builds his nest in a wall, or in a barn or out-house, and sometimes in old nests. The eggs are dull white mottled with red.

The Jackdaw (Resident)

This large black bird may easily be known by the big grey patch at the nape of his neck. He is smaller than his companion, the Rook. Like most birds that live in flocks together, he has no song, but calls "chack, chack, chack," from which sound he gets his name. He builds his nest in holes in cliffs, trees, or ruins, and is fond of a church tower. The eggs are pale blue or green-blue, mottled with dark brown and grey. Like the Magpie, he is bold and cheeky, and likes to fly off with anything bright that catches his eye—silver paper, rings, keys, and so on.

The Rook (Resident)

The Rook is a very big bird, about

19 inches in length. His coat is glossy black, and gleams with purple and green as he walks along the furrows. He calls "Carr, Carr!" as he flies. Rooks build their nests together, forming the rookery, which in spring-time is a very lively, noisy place.

Some people find it difficult to distinguish a Rook from a Crow. A Rook has the base of his beak bare—a Crow's is feathered. The only time a Rook has any bristles about his beak is when he is a youngster.

The Magpie (Resident)

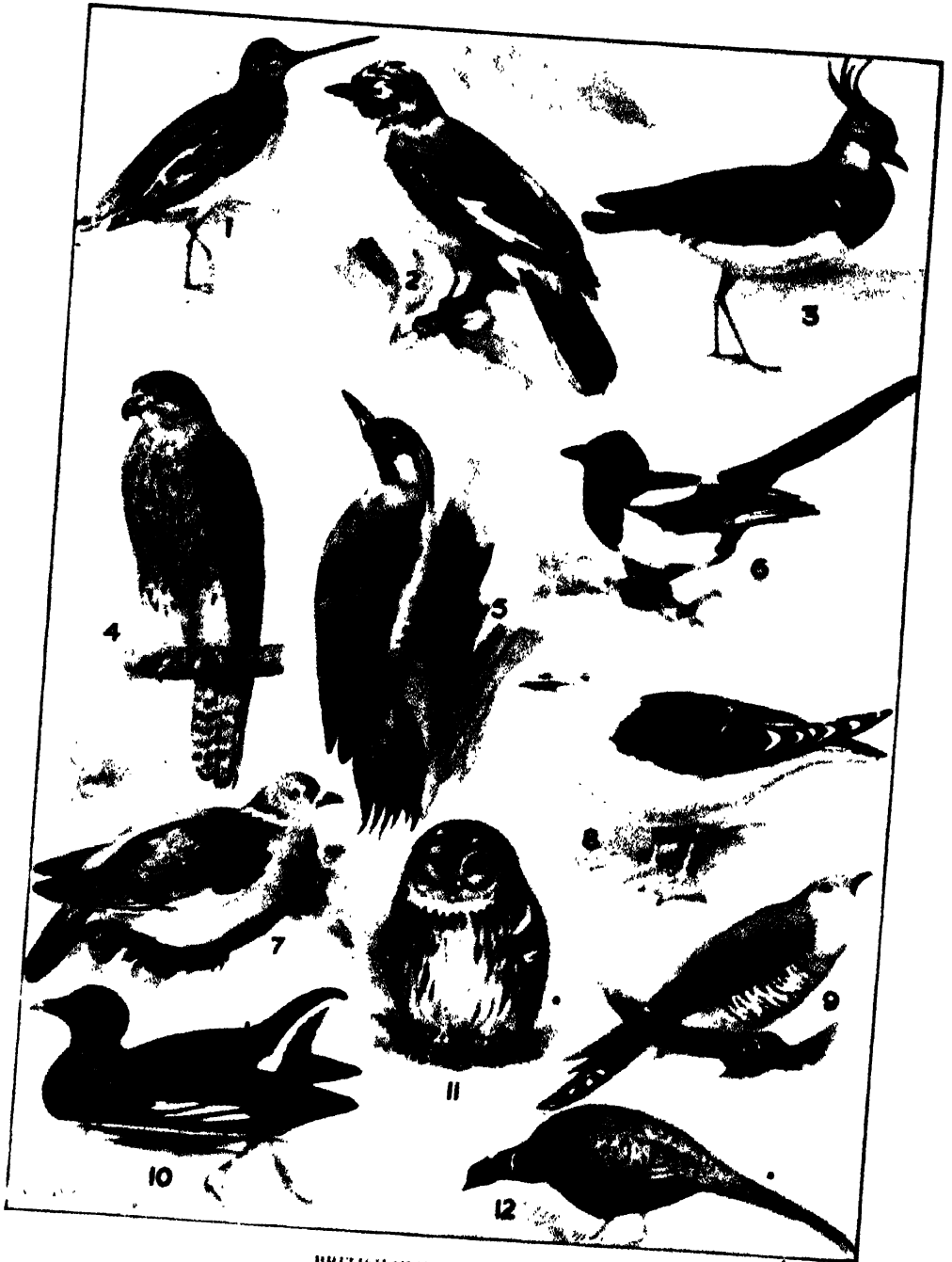
The Magpie is one of our most beautiful birds. He is very large, very noisy, and very bold. Like the Jackdaw, he will fly off with anything bright and gleaming, and will hide it. He is mainly black and white, but in the spring-time his wings and long tail gleam purple, green, and blue. Both Jackdaw and Magpie make amusing pets, and will learn to fly down and take food, or follow their owner round the garden.

The nest is built in high trees, and the eggs are pale green-blue, mottled with brown and grey.

The Jay (Resident)

A very noisy bird is the Jay, with his loud, harsh "Kraik, Kraik." He lives in the woods, and is large and handsome. He is dressed in light brown and white, with a brown-black tail. His lovely wings are black, white, and chestnut with a pretty patch of black, white, and blue-barred feathers at the side. His white crest is streaked with black, and he raises and lowers it frequently.

The nest is built at the top of a small tree or thick bush, and the eggs



BRITISH WILD BIRDS - II

1. Sparrow
2. Jay
3. Titmouse
4. Kestrel

5. Goldfinch
6. Magpie
7. Wood Pigeon
8. Greater Black-backed Gull

9. Cuckoo
10. Waterfowl
11. Pheasant
12. Moorhen

are green-blue thinly spotted with pale brown and grey, with an irregular black line at the wide end. The young birds go about in family parties and make a most discordant screaming noise.

The Kestrel (Resident)

This is our commonest Hawk, a big chestnut-coloured bird with a slate-grey tail. Underneath he is buff-coloured, with black streaks and spots. He has a sharp, curved beak. He may often be seen hovering over a field, watching for small birds or mice, and this custom has given him the pretty name of Windhover.

The rough nest is built among ruins, or in the old nest of a Crow or Sparrow Hawk. The eggs are yellowish, splotched and mottled with red-brown.

The Wood Pigeon (Resident)

One of the prettiest sounds of spring is the happy cooing of Wood Pigeons in our parks or woods. The children will like to listen to it, and to fit words to the cooing. "Coo-roo-coo-coo" is the sound. Words fitted to it are—"Tak' two coos, Taffy, tak' two coos, Taffy, tak'!" or "You are good, Nancy, you are good, Nancy, you."

The Wood Pigeon is dressed in lavender-grey with wings a darker shade, reddish-purple underparts, and a pretty green and purple neck with white patches. The white bars on his wings show plainly when he flies. The nest is built in hedges or trees and is a frail platform of sticks laid crosswise. The glossy eggs are pure white.

The Cuckoo (Migrant)

We welcome the Cuckoo in the spring, when we hear his pretty double-note

for the first time—but really he is not an admirable bird.

The female cuckoo does not build a nest of her own, but either lays her egg in another bird's, or else lays it on the ground and then, picking it up in her beak, carries it to some other bird's nest and leaves it there. Her eggs are often marked like those of a Hedge Sparrow or Pipit, but she does not always trouble to match them carefully! She chooses the nest of a bird that feeds its young on the same sort of food that her own youngster likes. Therefore a Hedge Sparrow, Pipit, or Wagtail are the birds in whose nests the Cuckoo's egg is oftenest found.

The egg hatches quickly, and when the tiny cuckoo first enters the world, he has only eggs or very young birds in the nest with him. He is an ugly little thing, bare, black, and blind. Between his shoulders is a hollow. There is one thing that he cannot and will not put up with—and that is to feel anything else in the nest with him. If he feels another egg there or a young bird, he does not rest until he has turned it out.

He wriggles about until he has got the egg or bird in the hollow between his shoulders—then, slowly and laboriously, he climbs up the side of the nest, and tips the offender down to the ground below. If an egg, it smashes, if a baby bird, it soon dies, for its own parents do not attempt to save it. In order to climb up the side of the nest, the young cuckoo has climbing feet—two toes pointing forward and two backward. In after life he is a perching bird, and does not need feet of this sort, and we are forced to the conclusion that they are given solely to help the young bird in his

murderous acts at the beginning of his career.

The foster-parents attend to their queer child assiduously, and do not seem to mind when he turns out their rightful children. They feed him well, and bring him the "woolly bear" caterpillars that he likes so much. He has such a piercing, insistent cry that other birds around will even begin to help in his feeding too. He grows very fast and is soon much bigger than his small foster-parents. Then they perch on his shoulder to feed him, and this quaint sight may sometimes be seen in our gardens, when the foster-parents first take out their great child to teach him to feed himself.

The Cuckoo is a migrant. The old birds leave in July or August, but the young ones do not fly with them. It is extraordinary that the youngsters should be able to fly so far, and on an entirely unknown route, without the older birds as guides.

The adult Cuckoo is a big bird. His plumage is grey, with a white-spotted tail. His underparts are white, crossed with dark bars, making him look rather like a hawk. For this reason small birds sometimes mob the Cuckoo. It is probable that the hawk-like markings are responsible for the Cuckoo's habit of placing its egg in another bird's nest, for possibly long ago its own nest was continually destroyed by other birds, who mistook the harmless builder for a hawk.

The Nightingale (Migrant)

Although most people have never seen the Nightingale, nor heard him near by, singing in the night, they have probably heard his song either over the wireless, or on a gramophone

record. He is like a large brown Robin, but has no red breast. He has the same habit of flicking his wings, and jerking his tail. He often sings in daytime as well as at night, but then his song is mingled with those of many other birds, and is unnoticed.

It is certainly very beautiful, but owes much of its enchantment to the fact that it is heard mainly at night when most other bird voices are silent. It can be heard from April to June, an hour or two after sundown, or on a moonlight night.

The nest is built on or close to the ground, under a hedge or thick bush, and the eggs are olive-brown.

The Nuthatch (Resident)

The Nuthatch may sometimes visit our bird-table, especially if we spread nuts there. He is dressed in slate-grey above, and chestnut underneath, and his throat and cheeks are white. He whistles loudly and clearly, like a boy—"tui-tui-tui"—and also sings a little trill of a song. He likes to wedge a nut in the bark of a tree, and then smash the shell with his beak, picking out the kernel to eat.

The nest is built in a hole somewhere. The eggs are white, speckled with red-brown.

The Woodpeckers (Resident)

There are three Woodpeckers to be seen. The biggest is the Green Woodpecker. His plumage is green above, yellow underneath, and he has a crown and cheek-streak of crimson. His call is a loud ringing "plue-plue-plue." He also makes a tapping noise, for he drums with his beak upon the bark of trees, to discover whether or not they are hollow. He feeds on insects and

chrysalids hidden in the tree, taking them out with his long and sticky tongue.

The second Woodpecker is the Greater Spotted one, about as large as a Song Thrush. His head and upper parts are white and black, with a crimson splash at the back of the head. Underneath he is white, shading down into crimson near the tail.

The third Woodpecker is the Lesser Spotted. He is rather like the Greater, but is a good deal smaller, and the crimson splash is on the top of his head, not at the back. He has no crimson underneath. The females of both the Greater and the Lesser have no crimson on their heads.

All the Woodpeckers make their nests in holes in trees, which they dig out to the required size, using the wood-chips that fall into the hole, as nesting material. All lay glossy white eggs.

The Linnet (Resident)

This pretty little bird is too often kept in cages, because of his sweet song. "Turra-titt-turra!" he sings, perched on the top of a gorse-bush somewhere on a common, a place he loves. He is dressed gaily, with a crimson forehead, crown and breast, a rich chestnut-brown back and buff-white underparts. His flight feathers and tail are fringed with white. The female has no crimson, and is duller in colour. In winter the male loses his crimson colouring also.

The nest is built in gorse bushes or hedges, and the eggs are blue-white, speckled with purple or red.

The Lapwing (Resident)

The Lapwing has other names—Green Plover, and Peewit. He is

known by his wild call of "pee-wit" or "pees-wip." He likes to live in open spaces, and often mixes with gulls when they flock inland.

He looks black and white from a distance, but really his back and wings are metallic green glossed with bronze and purple, and his crown, crest, and breast are green-black. He has a white tail and underparts, and red legs. The nest is built on the ground, and is composed merely of a few pieces of grass and roots. The eggs are four, and are buff-brown or dark green, mottled with brown-black. They are always arranged so that their narrow ends point inwards.

The name Lapwing is given to this bird because of its habit of feigning a broken wing in order to entice enemies away from the vicinity of its nest. It trails its wing on the ground, and the enemy follows, thinking it to be an injured bird which may easily be overtaken and killed. When the nest is left safely at a distance the Lapwing triumphantly rises into the air, leaving its pursuer lost in amazement.

The Wheatear (Migrant)

The Wheatear is one of the first migrants to return to us. He has a white breast, white rump, and a white forehead. His wings and the end of his tail are black, and he has a black streak through and below his eye. His back is pearl-grey. Waste places and bare hillsides he loves, and may often be seen on cliffs, downs, and moors. He says "chack chack," and also has a pretty little song. The nest is generally built in a hole in the ground, often in a rabbit's burrow. Sometimes it is put in the hole of a wall or rock. The eggs are pale blue.

The Swallow (Migrant)

Most people know the fork-tailed Swallow, and know him to be a migrant, coming to us in the Spring and leaving in the Autumn. He has a bright steel-blue back, chestnut throat and forehead, blue-barred breast, and buff underparts. His tail, as mentioned before, is long and forked.

Swallows are wonderful birds on the wing, flying tirelessly for hours. They are not good on the ground, for their feet are weak, and their legs are short. They catch millions of harmful insects in the spring and summer, and do incalculable good. Their song is a pretty twittering, "feetafeet-feetafeetit-feetafeet-feetafeetit."

The nest is built under the roof of an outbuilding, or in a barn on a rafter or beam. It is a saucer of mud, softly lined with grass and feathers. The Swallow likes to return to the same place and same nest year after year. The long, narrow eggs are white, speckled with grey or brown.

The House Martin (Migrant)

This bird is often mistaken for the Swallow, for he, too, is steel-blue on the back and white underneath—but his throat lacks the chestnut of the Swallow, his chest has no blue bar, and he has a shorter tail. Watch for the white patch on the lower part of his back at the root of the tail, for this will distinguish him easily. His name proclaims his habit of nesting—for he loves to build under the eaves of houses. Like the swallow, he builds his nest of mud, and lines it softly. The long-shaped eggs are pure white.

The Sand Martin (Migrant)

This little bird is the smallest of

the Swallows. He is mouse-brown in colour, and has white underparts and a brown band across his chest. His nest is made in a railway cutting, or sand quarry, and he burrows quite a distance, putting his nest at the end of the tunnel. He makes the tunnel run upwards so that rain cannot get in. The eggs are long and white. Like all the swallows, his song is a pretty twittering.

The Swift (Migrant)

Most people think that the Swift is a Swallow, and even when they know that the two birds belong to different families, and are two distinct birds, they find difficulty in distinguishing it from the Swallow.

The two birds have much the same characteristics, for the Swift, like the Swallow, has the same long forked tail, the same long wings, and very short beak. The reason for his similarity lies in the fact that he leads the same aerial life as the Swallow family, and his body is adapted to it in the same way. He is sooty-black, except for a white patch on his chin; his wings are very much sickle-shaped.

This is the bird that screeches and screams as he tears along on his powerful wings. He does not twitter like the Swallow family. His name is an excellent one, for he is extremely fast on the wing. He is not with us for very long, for he does not come until late April or May, and leaves us again as early as August, though some stay a little longer.

The nest is built under cottage eaves, or in a hole in an old wall. It is rather a flimsy, frail structure, for it is made of the bits of things that the Swift finds floating in the air—wisps

of hay, bits of fluff, cobwebs, and so on. The eggs are long in shape and white.

The Water-Hen (Resident)

This bird is often called the Moor-Hen (which means "mere hen," i.e. a bird of the meres or ponds), and is sure to be seen wherever there is a quiet patch of water with sheltering rushes or water plants for hiding-places. They are shy, alert birds, but if they are not molested in any way, will live happily in full view of the public, nesting and bringing up their young under the eyes of passers-by. This can be seen in many of our parks—for instance, Hyde Park, in the midst of London.

From a distance the Water-Hen appears to be black, but is really slate-grey on head, neck, and underparts, and dark brown above. He has a white stripe along his side, and beneath his tail he shows another patch of white. He wears red garters and has a red mark on his forehead. The nest is built in the rushes near the water, or at the waterside. The eggs are clay-coloured, thinly spotted with purple and red-brown. There are usually two or three broods in a season, and the youngsters of the first brood often help the mother to feed and rear the second family of nestlings. The call is "crek-crek-crek."

The Coot (Resident)

This bird is not so likely to be seen as the Water-Hen, because he prefers larger stretches of water. He is sometimes muddled with the latter, but can be told by his larger size, and his white bill and forehead, to which he owes the name of "Bald Coot." The call sounds rather like the bark of a

dog. The nest is built in the same sort of place as the Water-Hen's, and the eggs are stone-colour, speckled with dark grey and brown.

The Kingfisher (Resident)

The Kingfisher is a very beautiful bird, for he is dressed in such bright, gleaming colours. His back is a brilliant blue with a green sheen on head and wings; underneath he is a rich chestnut. He also has a chestnut patch behind his eye, and a white patch under his chin and behind his ears. His colouring has a beautiful metallic glint, and seems to change from blue to green and back again as he moves. When he flashes by on his bright wings he is a wonderful sight.

He may often be seen by the river, and will go on with his fishing even when someone is near, providing that the watcher keeps quite still. It will be seen that his body is rather stumpy, and his beak long and strong—both characteristics of use to him in his way of life.

He earns his livelihood by diving into the water and catching small fish, which he either swallows straight away or stuns by knocking on a branch. His call is "Kee-kee-kee," or "Tee-tee-tee," quite unmistakable when once recognised.

The nest is built in the bank of a stream, and is placed at the end of a tunnel, which he and his mate dig out. It is built of fish-bones, and is rather smelly. The round eggs are glossy white.

The Blackcap (Migrant)

This small bird is rather like the Willow Warbler in shape and size, but not in colour, for it is brown, and the

male has a distinct black cap. It has a lovely song, rich and mellow, some of the notes sounding like a Blackbird's.

The nest is built in bushes and brambles, and the eggs are mottled and clouded with yellow and red-brown.

The Garden Warbler (Migrant)

This is a little bird very apt to be overlooked for it is not very conspicuous, and is usually first noticed because of its beautiful warble. It is olive-brown in colour with a buff throat. Its throat distinguishes it from the Whitethroat, and its head from the Blackcap. It builds its nest in bushes or brambles, and the whitish eggs are mottled with red-brown or grey-green.

The Redwing (Migrant)

This bird comes to us for the winter, and stays until April. It is like a large Thrush, but has red under its wings, and a long, pale eye-stripe. We do not often hear it singing really well here. It usually goes about in large flocks.

The Fieldfare (Migrant)

Like the Redwing, this is a winter migrant, and is also rather like a thrush. It is a large bird, with slate-grey head, chestnut-brown back, and dark brown tail and wings. It goes about in flocks, seeking the berries, worms, and insects that make up its food.

The Owls (Resident)

The Barn-Owl has often startled passers-by at night by his blood-curdling screech, for which reason he is sometimes given the name of "Screech-Owl." He is a big bird, with a heart-shaped face, and very large eyes, which show that he is a night-hunter. He

has a circle of soft feathers round his eyes, and these make him look as if he were wearing spectacles.

He has tawny-coloured upperparts, speckled with white and grey. Underneath he is white. His face is white too. He grows hair-like feathers all the way down his legs, so that they are well protected from the bites of his terrified victims—mice, rats, voles, and small birds.

In the daytime he roosts in a hollow tree or in a barn. The nest is built in a hole in the barn, or in a church tower or ruin, or in a tree-hole. The almost round eggs are white.

The Little Owl is a smaller bird, grey-brown above, speckled with white. His wings and tail are barred with white and brown, and so are his white underparts. He calls "cu-cu!"

The Tawny Owl is dressed in red-brown above, speckled with dark brown, and his underparts are buff, streaked with brown; his face is grey. He is the Owl that hoots. He calls "hoo-hoo, hoo-hoo-vit!" He also calls "tvit!"

The Long-eared Owl gets his name from the two tufts of feathers sticking up from his head. He is buff-coloured above, speckled with brown and grey, and buff below, streaked with brown. His hoot is long-drawn and quavering—"Oo-oo-oo-oo-oo!"

Unlike other Owls, he does not build his nest in a hole, but likes an old nest belonging to some other big bird. Like those of all Owls, his eggs are round and white.

Sea Birds

For the different kinds of Gulls, see the All-Round-The-Year Calendar (August).

CHAPTER VI

THE SCHOOL AQUARIUM

How to Start a Permanent Aquarium. The Tank. Setting up the Aquarium. The Keeping of Goldfish. Changing the Water. Diseased Goldfish and How to Cure them. Breeding Goldfish in a Pond. Frog-Spawn in the Aquarium. Water Snails. Sticklebacks and Minnows. Caddis Grubs. The Biting Gnat. Great Black Water Beetle. Dragon-Fly Larvæ. Newts. Dytiscus Beetle. Water Spider. List of Animals and Insects that may be Kept Safely with One Another. Pond Insects for Observation Purposes. Visiting the Pond for Water Life.

THERE is probably nothing more popular in the classroom than a well-kept aquarium (see Fig. 9). There is always something to watch there, always something happening. It is an ornament to any classroom, besides giving first-hand information about the lives and customs of its inmates.

Many teachers think that it is a very difficult matter to keep an aquarium, and do not venture to do so. But it is really exceedingly easy, and a well-balanced one will more or less look after itself for an indefinite period. The pleasure that the children take in it will more than compensate the teacher for her trouble in starting one.

How to Start a Permanent Aquarium

The Tank

One of the best vessels for an aquarium is an old accumulator, often purchasable from wireless firms or electricians for very little. One about 20 inches by 18, and a foot or so deep, may cost only two or three shillings. Of course, aquariums may be purchased from firms that stock such things, but the price is usually too high for general use.

Goldfish globes are not suitable for aquariums, neither are they suitable for keeping goldfish in, because of the narrowed-in neck, which does not allow enough water surface to be exposed to the air. Do not use these for a permanent aquarium.

Setting up the Aquarium

The tank should be made to resemble a miniature pond as far as possible. First of all see that it is quite clean. Then get some pebbles and wash them thoroughly. Next obtain some sand—either silver sand from a dealer, or bird sand. Place both sand and pebbles at the bottom of the tank. Find some larger stones also which will form a shelter for the creatures in the aquarium.

Then a visit must be paid to the nearest pond for water weed of some kind. Canadian pondweed, a plant that grows long trailing stems bearing groups of small leaves around them, is one of the most useful. Duckweed is pretty, but is apt to form such a thick covering on the surface of the tank that one cannot see into the water from the top.

Pick some of the weed such as the Canadian pondweed, and take it to

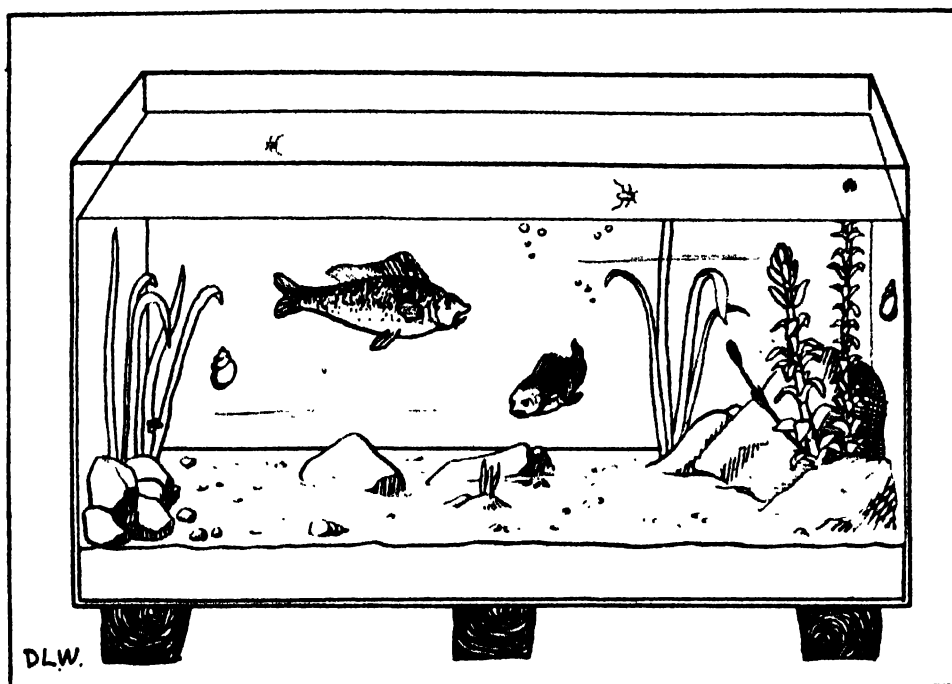


Fig. 9. --THE CLASS AQUARIUM.

the aquarium. Tie the bottom end of each piece to a pebble, so that it will be held upright in the water. It will, however, do almost equally well if left loose, and will eventually form roots that attach themselves where they will.

The reason that pondweed is necessary in an aquarium is, that it has oxygenating qualities, besides being ornamental. On a fine bright day the children will be able to see tiny silver bubbles rising up from the pondweed to the top of the water--bubbles of oxygen, aerating the water and keeping it pure. It is interesting to see this. The pondweed also serves as food for some of the inhabitants. It grows quickly and gives a pleasant green effect in the aquarium. If pondweed is not available, buy some watercress.

The next thing to do, after placing

the sand and pebbles at the bottom, and "planting" the water weed, is to fill the aquarium with water. The water should be either rain-water from a butt or pond water. Both are full of microscopic water-life, which serve as food to the carnivorous inhabitants. Lay a sheet of paper over the sand and pebbles, and pour the water in from a can with a fine rose. The paper will prevent the sand and pebbles from being disturbed. When half full the paper can be taken out and the tank filled in the ordinary way.

Now the aquarium is ready for its fish, newts, tadpoles, beetles, or whatever else we wish to have. It should be placed in not too strong a light, certainly not in direct sunlight in hot weather. Some aquarium keepers cover the sides and back of the tank

with paper to keep out the strong light. It should never be placed near the fire. In cold weather a window-sill is not a good place for it, for the more delicate fish are apt to die from the cold. A good place is on a table near a north window.

The Keeping of Goldfish

Not many of the goldfish that are bought for globes or other home aquaria live for long. As these fish normally have a very long life, when under proper conditions, there is a sad wastage of the pretty creatures. They are easy to keep in a healthy condition, and three or four small ones in a tank of the size mentioned before are a great joy to the children.

There are a few simple rules with regard to the keeping of goldfish. First, see that there is waterweed in the aquarium to aerate the water. Second, put in some pond snails, which will eat up the green slime that is apt to form on the sides of the glass, and will also act as dustmen, eating any decaying matter that might pollute the water. Third, do not feed on "ants' eggs" (which are the cocoons of ants, not the eggs) as they contain

little nourishment if any. Feed on porridge oats (uncooked, of course) and tiny shreds of raw meat occasionally. They do not need a great deal of food, and should not be given too much as it decays and pollutes the water. A little experience will show the right amount. Never give bread.

Pick out bits of decaying matter with a pair of wooden forceps, or get it out with a long iron spoon. Look over the aquarium every day to see that nothing of this sort is allowed to remain.

If snails and waterweed are kept in the aquarium with the fish, there should be little need to change the water. The waterweed aerates the water and the snails keep it clean. If, however, it should become clouded and dirty-looking,

and the teacher decides to change it, she should see that the fresh water is the same temperature as the old. Many fish die through being placed in water much colder than that in which they have been living for weeks. This is an important point to remember.

Changing the Water (Fig. 10)

The best way to change the water is to use a small siphon, and siphon it

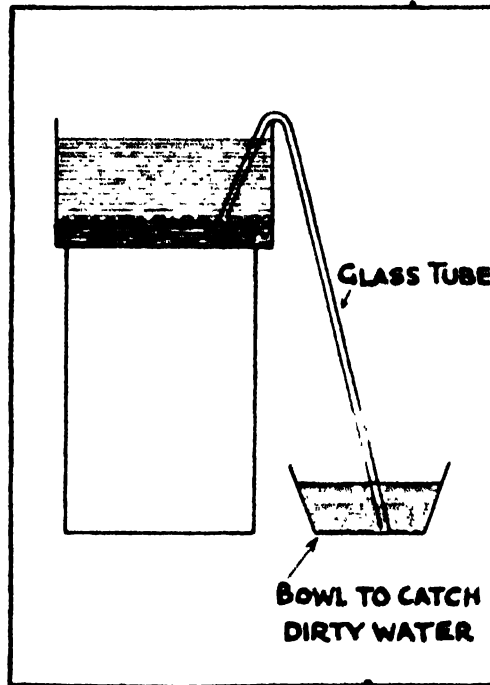


Fig. 10.- SIPHONING OUT DIRTY WATER.

out. Get a piece of glass tubing of $\frac{3}{4}$ -inch bore. The arms should be bent so that they are separated by a narrow angle. (See picture). One arm should be long enough to reach to about one inch above the bottom sand, when the tubing is lodged on the side of the tank. The other arm should be longer still.

Before placing it in position, lay the tubing down in a sink of water and let it fill. When full, place a finger at the longer end, holding it there firmly. Then lift the tubing out of the water, and put in position on the tank for siphoning out the water there. Have a pail placed in a convenient position to catch the waste water. Take away your finger and the water from the tank will siphon itself out, and thus can easily be changed.

To refill the aquarium, either use the siphon again, letting the water run from a vessel of clean water into the aquarium, or pour water gently on to one of the stones from a jug. As mentioned before, see that it is at the same temperature as the old water.

Diseased Goldfish—How to Cure Them

Goldfish are often attacked by a fungus disease, which, if unchecked, will prove fatal. Small, white cotton-woolly growths appear and spread over different parts of their bodies. When it reaches their gills they die. It is infectious, and spreads from one fish to another.

The cure is simple, though few people know it. As soon as a fish shows the fungus, take it out of the aquarium and isolate it in a jar or vessel of some sort. Into the water (which must be the same temperature as that of the aquarium) put some ordinary cake

salt in the proportion of one heaped teaspoonful to two quarts of water. Change the water every day for four or five days or longer, putting in fresh salt each time. At the end of that time the fish should be cured. If the growth is very bad, it may take longer, but even the worst cases may be cured in this way. The teacher will see the growth gradually becoming less and less, and finally it will fade away altogether. If the fish is not better in a few days increase the amount of salt.

The other fish should have their water changed also, and after the fresh supply has been put in, they should be watched for a week or two to see if any others will develop the disease. If they do, treat them in the same way as the first. Put the patient back into the aquarium again when cured.

A pinch of salt in the water now and again keeps the disease away. A salt bath is also good for any fish that looks ill or weakly. Tell the children to look at the back fin of a fish, to find out if it is well or not—for when in good condition the fin is well raised; when the fish is unwell the fin is lowered.

Some goldfish owners put a pinch of Epsom Salts into the water once a week to keep the fish in good condition.

If the fungus disease has been allowed to run riot, the tank itself should be disinfected, as well as the water being changed. It should be soaked for five or six hours in a solution of permanganate of potash (3 grains—by weight—to a gallon of water). Plants, too, should be sterilised. Soak them for an hour in the solution. The snails must be taken out before the tank is disinfected.

Sometimes fish suffer from fin congestion when their fins become streaked

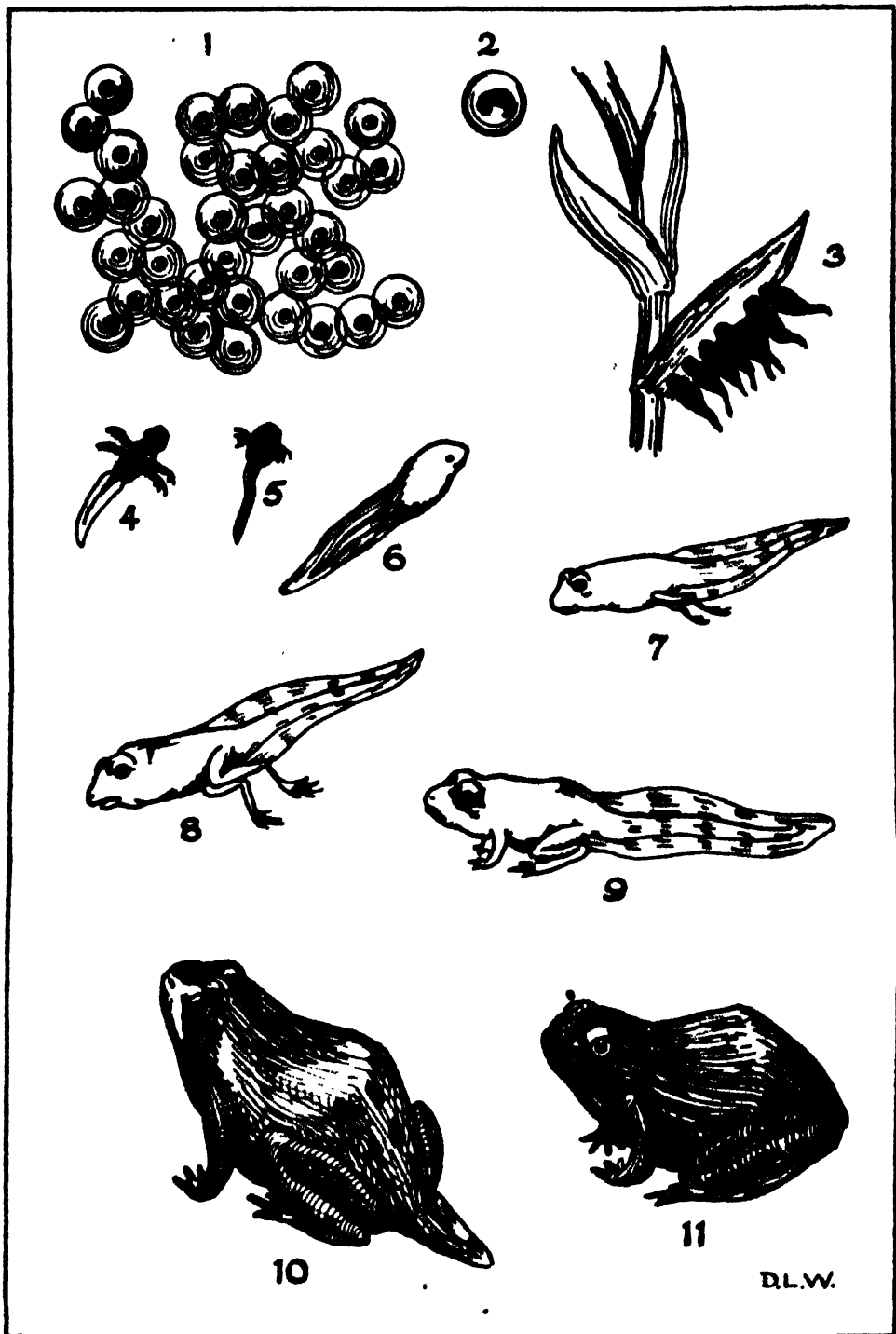


FIG. 11.—DEVELOPMENT OF FROG FROM JELLY EGGS.

and blotched with red. This is brought about by a chill of some sort, and may be cured by the salt-water bath described before.

Goldfish are pretty, hardy creatures, and should live for years. The children become very fond of them, and, like all pets, they should be kept under the best possible conditions—and once more let it be emphasised that the ordinary goldfish globes are *not* good receptacles for fish. Dispense with these, and get instead a tank such as that described overleaf.

Breeding Goldfish in a Pond

Those schools that own a pond in the garden may try breeding goldfish. The males can be told by the round tubercles on their fins in the spring-time. One male only need be purchased, and as many females as desired. The only essential condition for breeding is that the pond must become well heated by the sun. If the temperature does not rise above sixty degrees, the fish will not breed. Also, see that there is plenty of water weed in the pond, as the fish snap up their own eggs, and unless weed is provided, into which the eggs sink and are hidden, no young fish will hatch out.

The fish chase one another in the Spring and Summer, and this is their way of courting. The young goldfish may suddenly appear in hundreds, and are most attractive little things. Only a small percentage will be gold, but a few may change later. Most of the fish will be grey-green in colour. They soon learn to come to one part of the pond to be fed.

It is not necessary to purchase special fish for breeding purposes. The ordinary cheap goldfish will lay

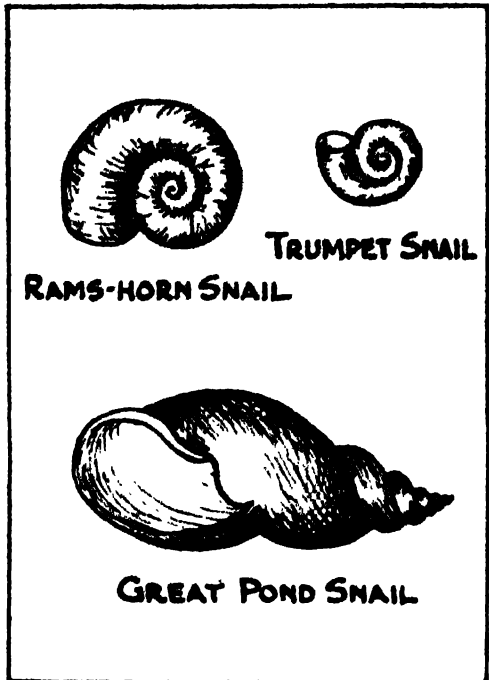


FIG. 12.—WATER SNAILS.

eggs, providing that the pond is warm. The children love to see the tiny fish that result from the eggs, and there will be so many that the teacher will be able to present one or more to any child showing a special desire for keeping goldfish at home.

Frog-Spawn in the Aquarium (See Fig. 11)

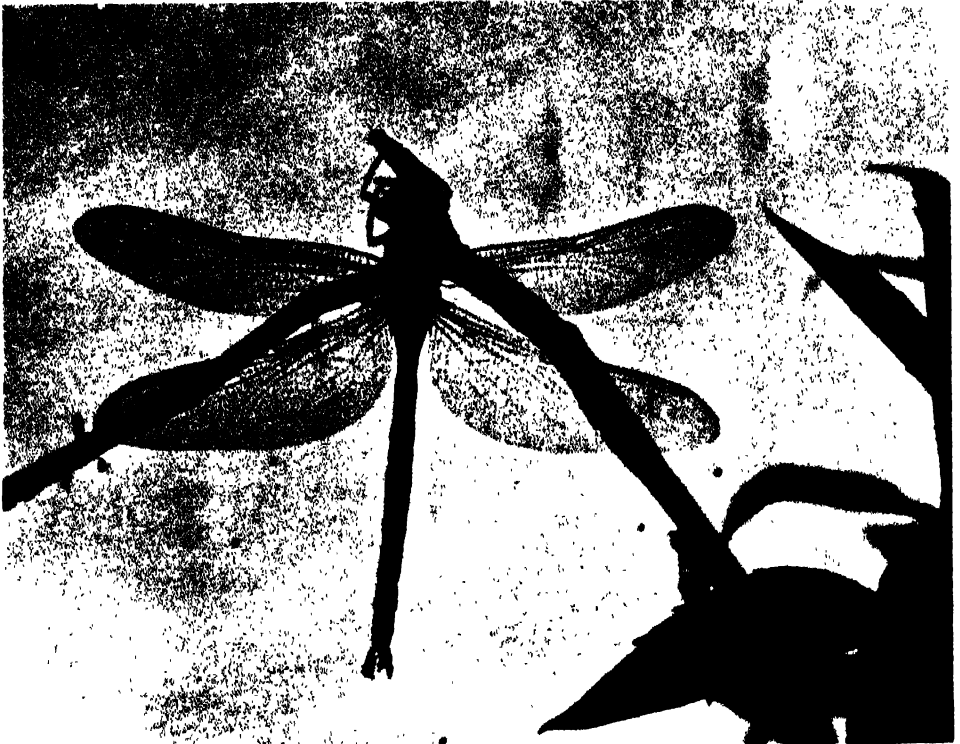
One of the yearly uses of the aquarium is to keep tadpoles for the children to see developing. The frog-spawn can be found in most ponds, a mass of floating jelly, with numerous black spots—the future tadpoles. Do not put too much of it into the aquarium. Even a large aquarium is not big enough to keep two or three hundred tadpoles! One often sees thirty or forty tadpoles struggling for life in a tiny jam-jar. This simply results in



CASES MADE BY CADDIS-WORMS.



A DRAGON-FLY LARVA.



DRAGON-FLY RESTING ON TWIG.

Photos J. J. Ward

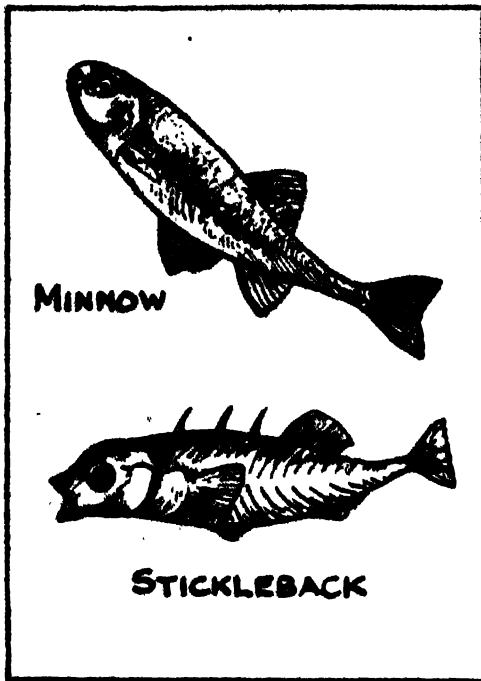


Fig. 13.—MINNOW AND STICKLEBACK.

weakly, under-developed creatures, and defeats its own object. Far better to have a few healthy, quick-growing tadpoles, whose lively antics fill the class with delight.

The frog-spawn hatches out into tiny black tadpoles, all head and tail. At first they cling to the jelly in which they were encased. The teacher should remove the jelly as soon as all the tadpoles are out. They will then be seen to cling to the weed in the aquarium by the suckers underneath their heads. As they develop, little gills branch out. Soon come the back legs, and then the front legs. The long tail shortens—it is absorbed into the body, and the tadpole is seen to be more like a little frog every day.

For food the pondweed will be useful. Also the teacher may tie a small piece of raw meat to a string

and hang it in the water about twice a week. See that none of it decays in the water. Visit the pond when possible and bring back a little water to empty into the aquarium—it will provide tiny water-life for the larger inhabitants.

As soon as the tadpoles change into tiny frogs they should be given a resting-place at the surface of the water to which they may climb if they wish. It is best to give them a floating piece of wood or something of the sort as soon as they have grown their front legs. If one of the stones projects out of the water this will serve the purpose.

When they are properly developed little frogs the feeding becomes difficult, and it is best for the teacher of small children to take the tiny creatures out to the pond and place them there.

Do not place tadpoles in the hot sun. Many teachers complain that they cannot keep tadpoles alive in the classroom, and probably the only cause is that the jar or vessel containing them has been put on too sunny a window-sill, so that the wretched little creatures have been almost cooked alive!

Water Snails (Fig. 12)

There are many kinds of these, all interesting and useful. There is the Ram's-horn, whose shape is described by its name; the Trumpet, a smaller edition of the Ram's-horn; and the Great Pond Snail, something like a small whelk in shape. These snails, as described before, act as "dustmen," and eat much of the rubbish that accumulates in the aquarium. They also lay eggs in short strips of jelly on the side of the glass. The amber points in the jelly are the developing

baby snails. When examined through a magnifying glass they are seen to be perfect little snails, complete with shell. They hatch out in due course, and after a time the aquarium has a fine population of snails of all ages and sizes !

Sticklebacks and Minnows (Fig. 13)

These fish may be kept in the aquarium with snails and caddis grubs. Feed on dry porridge oats, uncooked, a small pinch at a time. Also (when the children are not there) they may be given bits of chopped-up earth-worm. Minnows and goldfish live amicably together, but the stickleback is rather a pugnacious little creature, and prefers his own company.

Caddis Grubs

(Fig. 14)

These curious grubs have soft bodies which they endeavour to protect by building around them a hard case of the material nearest to hand—mud, tiny sticks, pebbles, shells, and so on. They feed on water weed. They are the larvæ of caddis flies.

The Biting Gnat

The egg-rafts of these may be taken from water-butts or ponds in early

summer. The larvæ and pupæ may also be found in the same places. They are interesting to keep in the aquarium for a while, or may be kept in a saucer separately for closer examination, as they are rather small.

Great Black Water Beetle (Fig. 15)

This lively creature is a vegetarian. It is the largest of the water beetles and measures two inches in length. It will fly from the aquarium during the night, so when it is kept for observation a cover should be placed over the top. When needing air it rises to the surface head first, and turns its body slightly to one side.

Dragon-Fly

Larvæ (Fig. 15)

These may be taken from ponds (usually on the bottom mud). They are carnivorous, so must

not be put with anything else save snails or caddis grubs. They feed on tadpoles or blood-worms. The latter may be bought.

Newts (Fig. 15)

The early summer is the best time to look for these in the pond. The aquarium must be covered when these creatures are placed there. There are three kinds, the Great Crested Newt,

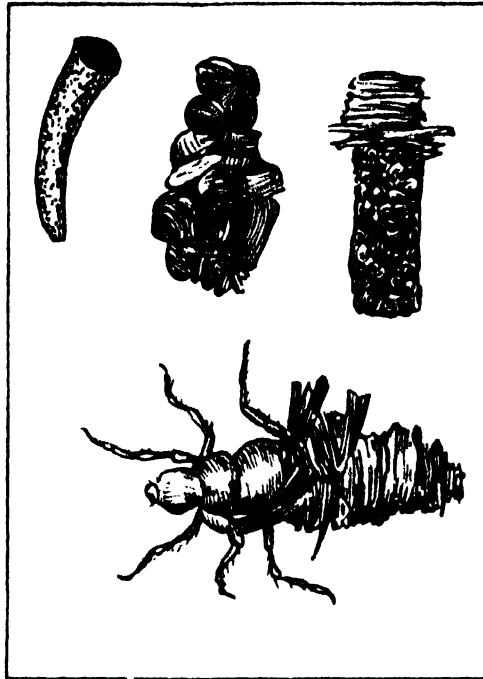


FIG. 14.—CADDIS GRUB AND CASES.

NATURE TALKS

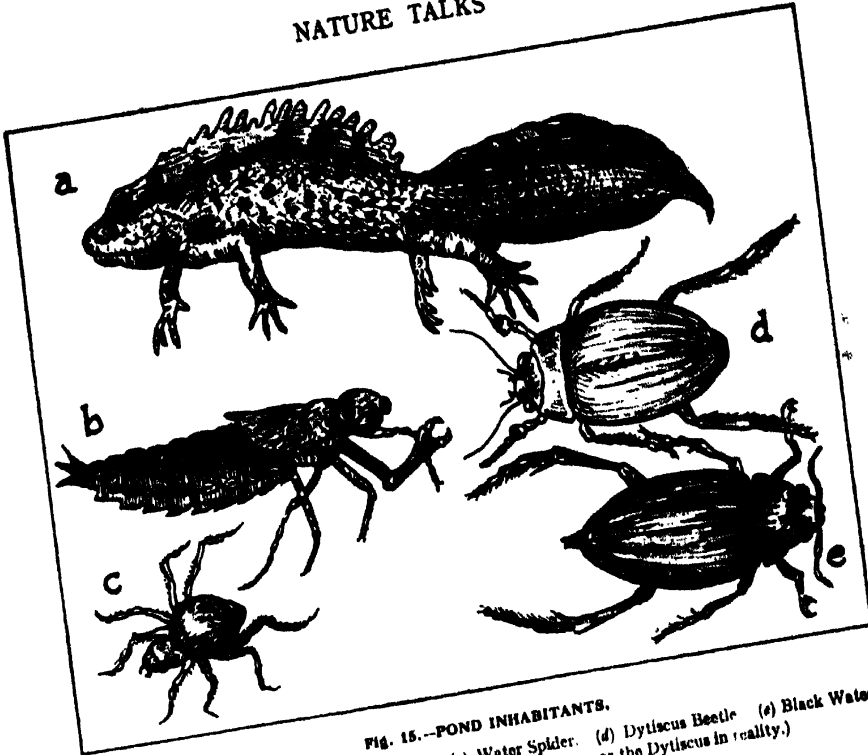


Fig. 15.—POND INHABITANTS.
 (a) Great Crested Newt. (b) Dragon-fly larva. (c) Water Spider. (d) Dytiscus Beetle. (e) Black Water Beetle. (The Black Water Beetle is about twice as large as the Dytiscus in reality.)

the Common Newt, and the Palmated Newt. If taken early enough they will probably lay their eggs on the water weed, and the children will be able to watch the fish-like tadpoles through all their stages of development. They take longer to mature than do the frog-tadpoles. See that there is plenty of water weed in the tank when Newts take up their quarters there, as they love to lie on it with their noses out of the water.

Feed Newts on small worms or tadpoles. A pennyworth of "red-worms" may be bought from a dealer, and kept in damp earth in a jar. This amount will last a long time. Newts will also take tiny pieces of raw meat occasionally.

The Dytiscus Beetle (Fig. 15)

This large inch-long beetle is a very fierce creature, and the other denizens of the pond fear it greatly. Even a good-sized goldfish is not safe from its attack. It can only be kept with Ram's-horn Snails. It may be fed on worms, tadpoles or raw meat. When it breathes, it rises to the surface of the water and hangs there with its tail-end out of the water. Its larva is just as fierce. Cover the aquarium when the Dytiscus Beetle is kept.

Water Spider (Fig. 15)

This is best kept by itself in a deep vessel which must be covered. It feeds on small water-life, and if the

teacher can supply fresh pond-water frequently, will be quite happy for some time. It may be kept without feeding for a week or so, for observation purposes, if no fresh pond-water is available.

Animals and Insects that may be kept safely with one another

1. Tadpoles, Water Snails, Caddis Grubs.
2. Fishes, Newts, Water Snails.
3. Newts, Water Snails, Caddis Grubs.
4. Dragon-Fly Larvæ, Caddis Grubs, Trumpet Snails.
5. Dytiscus Beetle and Ram's-horn Snails.
6. Great Black Water Beetle, Fishes, Snails.
7. Water Spiders by themselves.
8. Larvæ of Beetles by themselves.

Pond Insects for Observation Purposes

Such creatures as Water Boatman, Water Skaters, Whirligig Beetles, and so on, which are not suitable as per-

manent members of the aquarium, may be placed in saucers of water or small glass jars, and covered with glass plates. When no longer needed they can be taken back to the pond.

Visiting the Pond for Water-Life

Some teachers whose classes are very large will feel chary of taking their children to the waterside for the purpose of collecting material for the aquarium. Those who can do so, however, will find that the children enjoy the outing tremendously, and take a great pride in their "captures." It is perhaps advisable, when the children are very young, to take only a few at first.

Take glass jam-jars for the creatures to be carried back to school in. Each should have a string round its neck so that it may be carried easily. Nets are needed, and these are soon made of muslin sewn round bent wire, and inserted into handles of some sort. Talk about the outing before going, and describe things likely to be found.

CHAPTER VII

A WORMERY

How to Start a Wormery. Another Wormery. A Third Wormery. An Interesting Experiment.

CITY schools that find it difficult to keep living creatures in the classroom may like to start a wormery, so that the general habits of earthworms may be watched by the children. They are interesting and useful little creatures, doing far more good than harm.

How to Start a Wormery

Get a large bell-jar and fill it with moist earth. Then find several large earthworms and place them into the jar. Put the jar in a dark corner of the room, when the worms will probably make their tunnels along the side of the glass. During the night they will throw out their castings, and these will be found by the children in the morning. The worms actually eat the earth, and after it has passed through their bodies it is in a very fine, soft condition. Let the children crumble up the worm-casts, and feel what fine soil it is.

Another Wormery (Fig. 16)

Another kind of wormery shows how the worms mix up different soils. This is very interesting. Get five or six different substances and place them in equal layers in a bell-jar. Red sand, silver sand, clay, chalk, coco-nut fibre, gravel, and so on may be used. The

jar should show equal strata all the way up. Then put in the earthworms.

They will begin to tunnel, and gradually the different layers will become unequal and crooked. After a time there will be no layers at all, but simply a mixture of different colours—sand, clay, chalk and so on being inextricably mingled. This shows very clearly what the worms do to the soil day after day. Great good is done, for earth that lies deep, and is sour, is brought up to the top, and exposed to the beneficent influences of the weather.

Earthworms live in a sort of enlarged chamber at the end of their burrows. In order to keep out the cold and the wet, and also to protect themselves against birds, they plug up their burrows with many different things, such as leaves, both live and dead, bits of straw, small pebbles, feathers. Tell the children to look on the grass in the morning, if they have a garden, and see how many plugged-up worm-holes they can find. They will be interested to see what a miscellany of things the earthworms use.

A Third Wormery

A wormery to show this habit of worms may be easily made. Fill several jam-jars with earth, place worms

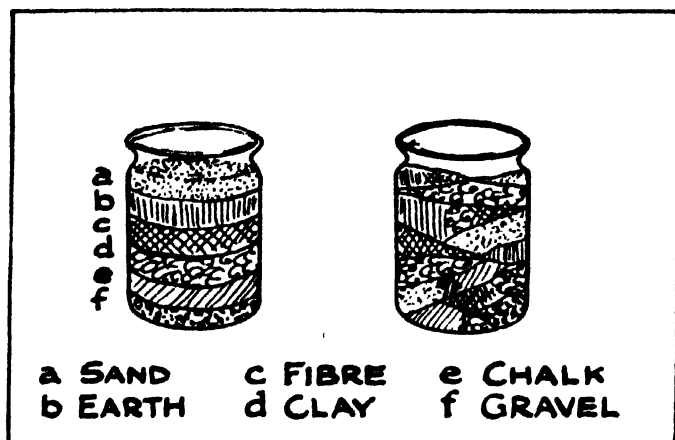


Fig. 16. -WORMERY, BEFORE AND AFTER WORMS ARE PUT IN.

inside, and put on the surface of the soil such things as fresh leaves, decaying leaves, feathers, tiny pebbles, bits of wool, hair, pieces of string, straws and so on. During the night the worms will plug up their holes with some of the material provided, and the children may examine them in the morning, and see what they have used for plugs.

As worms stop up their burrows mainly to keep the cold out, it is as well to put these wormeries in a cold place for the night, or they will not bother to plug up the holes. Also it is better to try this experiment in cold

weather for the same reason.

Let the children pull out the plugs, and see exactly what the worms have used, and how they have welded them together to make a good stop-gap. Let them note what the worms use the second time.

An Experiment

An interesting experiment to show the children can be made

by placing a few pine-needles on the surface of the wormery.

These are always in pairs, joined together at the base. Worms invariably drag the needles into their burrows by the base end. If they did not do so, but pulled instead at the tip of one needle, the other would effectually stop its entrance into the burrow by pressing against the ground when the base reached the hole. Worms seem to know this, and therefore appear to exercise a certain amount of intelligence by invariably pulling at the right end. This curious fact always interests the children.

CHAPTER VIII

CATERPILLAR AND INSECT CAGES

A Good Breeding Cage. Another Cage. Some More Cages. How to Make Them and What to Do.

CATERPILLARS should be kept under as good conditions as possible. They need fresh, suitable food, air and light. A cardboard box with a few holes in its lid is not a suitable home for caterpillars, neither is it of much use for observation purposes.

Caterpillar boxes made of tin with a glass top are good for very small caterpillars. These can be bought from a dealer.

A Good Breeding Cage

A suitable breeding cage for larger caterpillars is recommended by the Board of Education in their "Handbook of Suggestions for Teachers" (1927).

"A few inches of soil are placed in an ordinary flower-pot, and a small bottle filled with water is partially embedded in the soil, and shoots of the plant with the growing caterpillars are placed in the bottle. A wide lamp glass with a muslin top rests on the soil and encloses the bottle and its contents. From time to time fresh food is introduced, and after the caterpillars have settled on this, the remains of the old food are removed. All stages in the life-history can readily be followed."

Another Cage (Fig. 17a)

Another cage may be easily made as follows. Get a water-bottle or glass

jam-jar and cut a thick cork so that its bottom fits tightly into it. Then cut the cork in half and make a groove in the middle of each face so that the stalks of plants may pass through the hole made when the cork is fitted together again. Now get a lamp chimney and cut the top part of the cork to fit into the end of the chimney. Make a tube of muslin to fit over the top end, held together by an elastic band. (See picture.) Fit the cork into the water-bottle, which should have water poured into it, place the stem of the food-plant through the cork-hole, then fit the lamp chimney on to the top part of the cork. Cover the end with the muslin. This makes an excellent cage for observation purposes.

Some More Cages

Another cage is suitable when the food-plant is growing in a pot (Fig. 17b). Get a lamp chimney, and glue two muslin tubes one to the top and one to the bottom. Place over a branch of the food-plant upon which the caterpillars are put. Keep the lamp chimney in position by fastening it to a stick driven in the pot. Elastic bands will hold it fast. Draw in the ends of the muslin tube by means of these also. The bottom band will hold the muslin tightly to the stem of the plant. (See picture.)

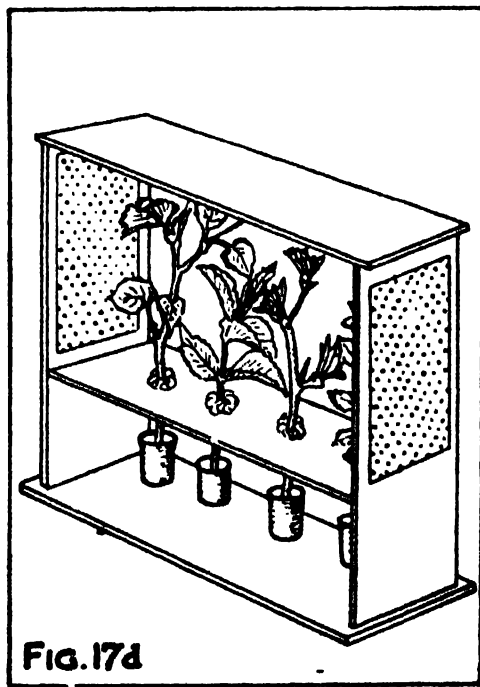
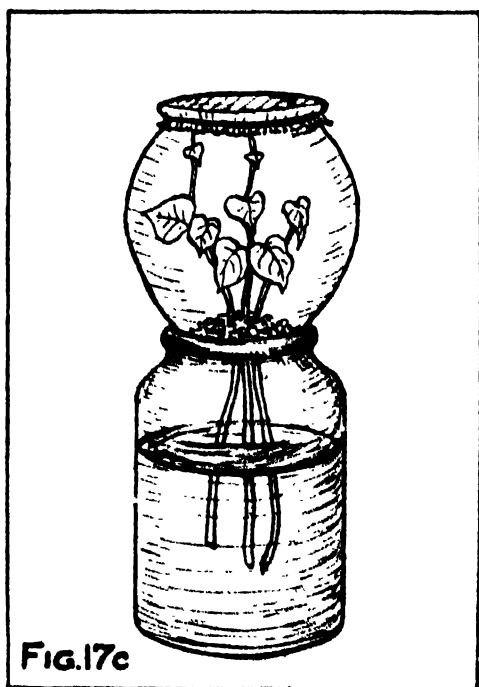
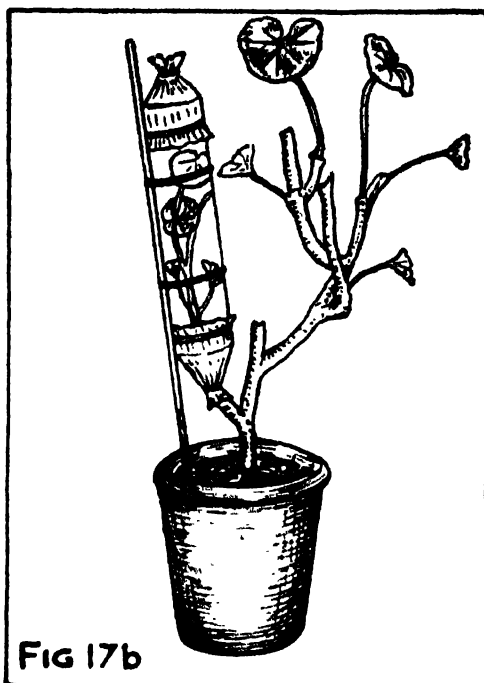
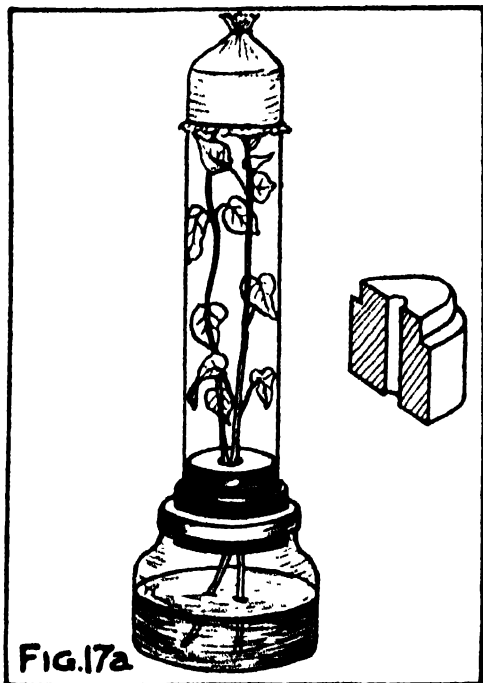


Fig. 17.—TYPES OF CATERPILLAR AND INSECT CAGES.

When the food-plant has rather a short stem, use a lamp globe instead of a lamp chimney (Fig. 17c). Place upon a water-bottle or jam-jar, and put the food-plant through the hole of the globe into the water. Stuff up any aperture left with cotton-wool. Put the caterpillars on to the plant, and then place a muslin cover over the top of the globe, drawn in at the sides with an elastic band.

Another useful cage can be made from a sugar or other kind of box. Remove a portion of the side and replace by glass. Make the open side of the box either the top or the back of the cage, and cover with perforated zinc or muslin. Cover the bottom of the cage with soil, and place the requisite food in position. This kind of cage is also suitable for such creatures as frogs, toads, and spiders.

An adaptation of the above is useful when caterpillars are feeding on a food-plant stood in water (Fig. 17d). Place a board in the centre of the box, forming a shelf. It should have two or three holes bored into it large enough for the stems of the food-plant to be passed through. On the bottom part stand one or more jars of water into which the food-plants are placed, their stems first passing through the holes in the shelf so that their leafy parts are on the shelf. The caterpillars are then placed on the leaves, and there is no fear of their being drowned. The shelf is supported by two strips of wood nailed on to the sides of the box, on which the shelf rests.

It goes without saying that cages should be cleaned out daily, and fresh food supplied whenever necessary. Do not keep the cages in too hot a place.

CHAPTER IX

SCHOOL PETS—WHAT TO KEEP AND HOW TO KEEP THEM

Rabbits. Guinea-Pigs. Tortoises. Hedgehogs. White Rats and Mice. Frogs and Toads. Birds: Canaries, Pigeons, and Bantams. Friendly Squirrels as Visitors. Goldfish (see Chapter on School Aquarium). Other Animals. The Week-Ends and Holidays.

THE teacher of young children who is able to maintain a succession of growing healthy life in or near the classroom has gone far towards becoming a successful teacher of natural history."—"Hand-book of Suggestions,

It is easy to grow flowers, germinate seeds, and so on, but not so easy to keep birds or animals as pets for the school-children. There are many difficulties in the way, some of them almost insuperable. The week-ends, for instance, present a great problem.

The following animals and birds may be kept by the teacher, especially if her school is in the country. Town teachers have not so much choice, but even they may keep such things as white rats and mice, or a tortoise.

Rabbits (Fig. 18)

These animals are always much beloved by children, and are very easy to keep. The hutch must be a fair size. Have a tray at the bottom which can be slid in and out for cleansing purposes. Put a box without a lid upside down at one end of the hutch, so that the rabbit may use it for his bedroom. Cut a hole for entrance at one side of it. Fill it with hay.

The rabbit will love to exercise himself in the classroom or playground, for he will rapidly become very tame.

Let the children feed him. Give him oats for breakfast. Be sparing with green food and bran. The latter need not be given at all. Do not give bread. For the afternoon meal he might have warm tea leaves, squeezed almost dry, mixed with pollard. He likes a carrot to nibble daily.

Make his bed of hay, and sprinkle the floor with Sanitas after cleaning.

When holding a rabbit in your arms, be sure to keep a firm grasp of the ears, for startled rabbits leap very suddenly, and may break their legs or hurt themselves in some other way in falling.

Guinea-Pigs

These interesting little animals may also be kept in hutches and fed in much the same way as rabbits. The children are amused to find that their bed of hay becomes their breakfast in the morning when they feel extra hungry.

Tortoises (Fig. 19)

Many people think that a tortoise is a slow, dull creature. Slow he may be, though he can get about quite quickly when he really wants to, but dull he certainly is not. His bright, alert little eyes are always on the watch, and he soon knows when a friend approaches, for he does not

retire into his shell, but stretches out his neck to be gently stroked under the chin.

The ideal way to keep him is to let him free in the garden, which, if wired or fenced round, will successfully keep him in. He will soon spy out a lettuce bed, so this must be protected. He is also fond of violas and delphiniums, and these too must be protected from him. If

he is free in the garden, he will find his own food, but if kept in a terrarium will need to be fed on such things as lettuces or tender cabbage leaves. A large sugar box, such as that described in the chapter on "Caterpillar and Insect Cages," will suit him. He sleeps all the winter through, and when hibernation time comes should be put away in a fairly cold spot, or he will not sleep properly.

If he hibernates in the garden he will dig himself a hole in the ground and bury himself there. Mark the spot or he may be dug up and hurt. It is really better to put him into a box of earth and set him safely in a shed till the warm days come again.

Hedgehogs (Fig. 20)

A Hedgehog is a quaint little creature suitable for keeping a short time for observation purposes. He may be put into a small hutch, supplied with sleeping quarters, and fed on bread and milk. He is likely to have an abundant supply of fleas, but as these are not the kind

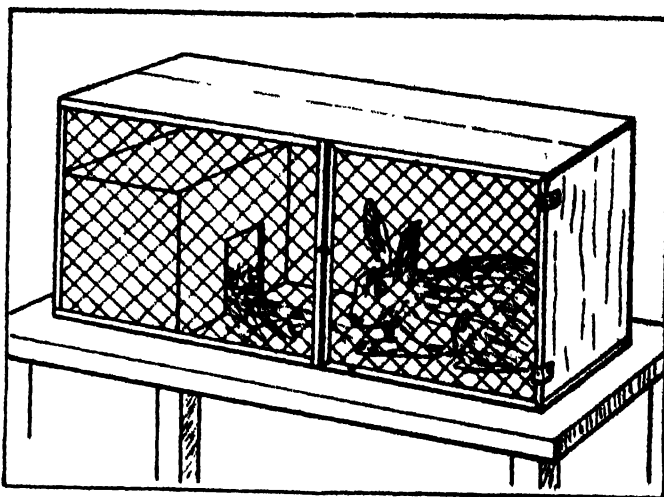


Fig. 16.--RABBIT AND HUTCH.

we need to fear, there is no need to regard him with any aversion. He is not a cuddlesome creature, but his habit of rolling himself up tightly, his swift way of getting about ("he goes like a clockwork mouse!" was one child's description of his gait), and his pleasure over a saucer of bread and milk are most fascinating to watch.

White Rats and Mice

These pretty creatures become very tame indeed. Keep them in small hutches, and allow them exercise. They will run about the classroom quite fearlessly. See that the door is shut, or there may be a tragedy if the school cat walks in.

Frogs and Toads (Fig. 21)

Both these animals may be kept easily in a terrarium made of a sugar box. See that there is a bowl of water in the cage. An attractive terrarium is made by laying turf at the bottom of the box, leaving a space for a shallow enamel bowl full of water, so that the bowl looks as if it is sunk into the

earth, and has the appearance of a small pond.

The feeding of Frogs and Toads must not be done when the children are present, as we do not wish them to see caterpillars, worms, etc., being devoured. When meal-time comes, put the creatures into a large tin box—a biscuit box, for instance—into which their food has been already placed. Put the lid almost on, so that the Frog or Toad may eat undisturbed in dim light. Remove him to his cage when he has finished. Grubs and worms may be bought for feeding these amphibians.

Birds

No birds should be kept in cages except Canaries. A Canary in the infant room is a joy, even though he does sometimes sing when we would rather he did not. Most cage-birds do not get the attention they require, and to keep a Canary in the classroom, carefully tended every day, provides an excellent lesson on how to look after these pretty birds in the right

way. See that the cage is not in a draught. The children will love to plant canary seed, and grow the plants from which their pet's seeds come. They can collect them when ripe, and give them to their bird.

Pigeons and Doves

These birds are suitable for keeping as school pets, and as their feeding and general care are very easy, it is surprising that more teachers do not keep them. They become very tame, and will fly down to the children's hands and shoulders at meal-times, filling them with delight.

Fantail Pigeons are very easy to keep. They may either be given a pigeon-house on a pole, or have a wooden house built for them on a window-sill or against the side of the wall. They sleep in the pigeon-holes, and come down to the ground to be fed. They like their grain spread on the ground, so that they may pick it up as they walk. They will also take it from the children's hands. Their lovely cooing is a delicious sound to hear in the spring-time.

When they lay eggs and hatch out baby pigeons, there will be much competition among the children as to who will be allowed to have a young pigeon as a home pet. Pigeons love to sit about in water, so provide them with a large, shallow enamel bowl, and change the water frequently, as they drink and bathe in the same bowl.

It should not be be-

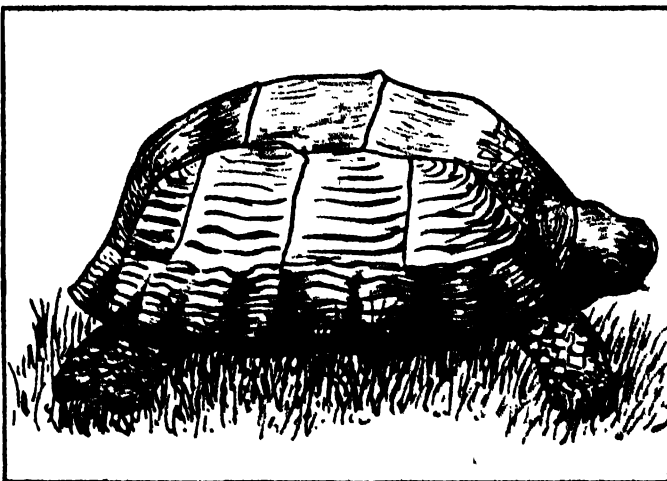


Fig. 19.—TORTOISE.

yond the ability of the boys in the Upper School to make a pigeon-house for the infant class. The pole must be high to be out of reach of cats. Buy a pair of pigeons, and for the first week or so, wire them into the house so that they may get used to their new quarters. Then take the wire away and let them fly out. They will fly round a few times, and then, once they know their home and surroundings, will settle down there for life.

Bantams

Some country teachers may like to keep Bantams, and give them the run of the playground. They soon become tame, and rapidly pay for themselves. Space forbids full details of their housing and food, but there are plenty of cheap pamphlets and books available on the subject.

Goldfish

These have been fully discussed in the chapter on "The School Aquarium."

Squirrels

These nimble, graceful little animals should never be kept in cages. It is often possible, however, when a school is in the country, with squirrels living near by, to persuade one or two to become tame enough to visit the school garden.

Other Animals

There are many animals, such as

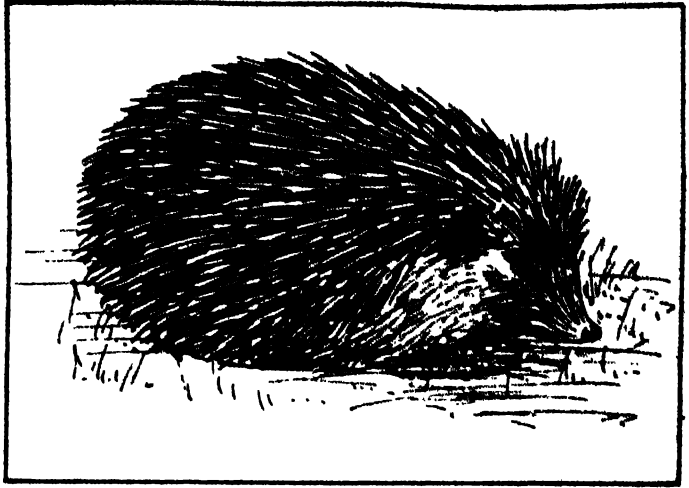


FIG. 20.—HEDGEHOG.

Grass-Snakes, Dormice and so on, which, while they cannot be kept as proper pets, may stay with us for a little while, for observation. The teacher should always be ready to "put up" a visitor of this sort, for her interest and care will find a faithful reflection in the children, who will treat animals henceforth as she has treated them. A hurt bird, a young hedgehog, a lost dog, all can be welcomed and treated kindly while they stay.

As described elsewhere, the garden robin should be tamed, if possible, when he will probably visit the classroom regularly. Other birds are more difficult to tame, but blackbirds and thrushes have been known to repay kindness by showing unwonted friendliness and fearlessness. Nothing should be left undone to promote a true love and understanding of wild life, as well as of tame pets.

The Week-Ends and Holidays

"Who will look after the animals during the week-ends and holidays?" say those teachers who come to their

school from a distance. This is a real problem, especially when such creatures as rabbits are kept, which must be fed daily, and their cages cleaned regularly.

The school caretaker will often prove of help, and the animals may perhaps be safely left to his or her care during the week-ends. Sometimes the children themselves will be able to come and look after the pets, but when they are very young this is not advisable. A better plan is to let one of the elder children, who can be trusted, take the pet home for the

week-end and tend him there. If not, probably an elder child may be trusted to attend to the wants of the animal at the school itself. If no real solution of the problem presents itself, it is best to forgo keeping pets entailing anxiety of this sort, as sooner or later they will suffer from neglect.

Holidays will not prove so difficult, as one or other of the children will be sure to volunteer to take

charge of the pet at his own home. In fact, there will probably be keen competition as to who may have the privilege of "boarding out" the school pet!

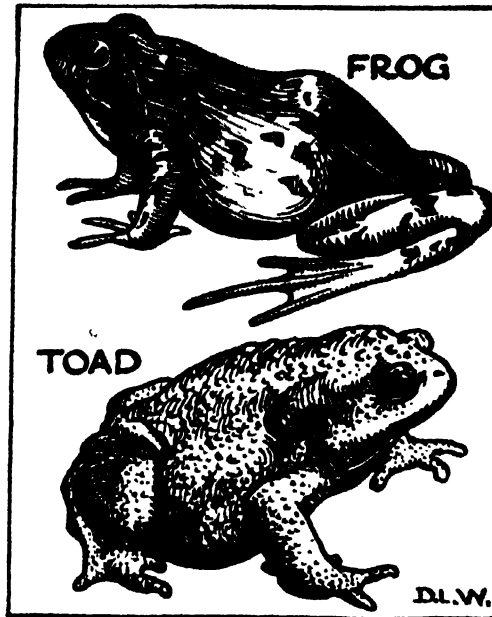


Fig. 21.—FROG AND TOAD.

CHAPTER X

BULB-GROWING IN THE CLASSROOM

Hints on Buying Bulbs. Bulbs Grown in Soil in Pots. Points to Remember. Growing Bulbs in Fibre. Bulbs Grown in Glasses. Corms Grown in Stones and Water. Hyacinths. Daffodils. Tulips. Crocuses. Scyllas, Snowdrops, Aconites. Gladioli. After Flowering.

MOST teachers try to grow bulbs in the classroom nowadays, but it is not everyone that is successful. Fine, shapely flowers, healthy and strong, bring the greatest pleasure to both teacher and children, but weakly plants, with poor flowers or none at all, are a bitter disappointment after weeks of watching.

The best bulbs to grow in school are daffodils and hyacinths, and certainly these should be the first tried, if the teacher has had no experience of bulb-growing before. The second year she should try others such as crocuses and scyllas, narcissi and tulips.

Hints on Buying Bulbs

Bulbs for growing in pots or bowls should be bought as early in the season as possible, as naturally the best ones are picked out first. Choose yours in August or September, and pick out the finest and the healthiest looking. They should be firm to the touch, and feel solid. It is a mistake to buy cheap bulbs. It is far better to buy a few good ones and enjoy the results than to buy a number of cheap ones and regret it when flowering time comes.

For garden planting bulbs are at their cheapest in the New Year. They may be planted then, and will flower, but will be late.

Bulbs Grown in Soil in Pots

The teacher will find that daffodils for the classroom will grow very well planted in ordinary flower-pots in good soil.

Take some flower-pots and scrub them well inside and out so that they are quite clean. If the pots are new, soak them in water for twenty-four hours. Dry them; then they are ready for use.

Next take some pieces of a broken-up old flower-pot, and place them over the hole at the bottom of the pot. This is to ensure that when the plant is watered, the water will run easily out at the bottom, and will not take any soil with it.

Then fill the pot half full of soil. It is often difficult to get good soil if one lives in the heart of a town, but the determined teacher will find some way. Now place the bulbs on the soil, close together but not so close that they touch. Put as many into the pot as possible, if a good show is wanted—if, however, one bulb goes to each child or to a group of two or three, the children usually like their bulbs separate. Nevertheless, better results are obtained if four, five, or six are planted together.

Now fill the pot up with earth, to within an inch of the top. This leaves good space for watering. Water the

bulbs well, and put the pot away in the dark somewhere. The spot chosen must not be draughty or hot. It must be cool and airy. An airless cupboard is not a good place to choose. Let the children water the bulbs once a week.

When the bulbs are showing their green noses an inch or more above the soil, take them from the dark and place them in the classroom, not too near the light at first. Do not place them near a gas-fire, nor put them in a draught. Bring them gradually to the light, water them a little every day, and let them have the advantage of any sunshine there is, as soon as they make any growth.

Points to Remember

Too much water makes the stalks grow too long. Too weak light, when the plants need sunshine, has the same effect. Do not keep them in too warm a place at first. Be sure to keep them in the dark until they are quite ready to be brought out. (This does not apply to crocuses.) Too little water makes the tips of leaves and flower-buds go brown.

Growing Bulbs in Fibre

Far better than growing bulbs in soil is growing them in fibre. This is

nice clean stuff, and solves the problem of drainage (for bulbs can be grown with fibre in ordinary bowls, without any drainage hole). It can also be used again and again.

It can be bought from any florist or seedsman. The price varies, therefore it pays to ask at two or three places before buying. It is delightful stuff to use, and even to feel it in the hands

is a pleasure—one which all the children can share.

It must be used damp, so the first thing to do is to mix it with water. Put it in a big enamel bowl, make a hole in the middle, and pour the water there. Then stir round and round as if stirring milk into a cake. All the children can help. Make the fibre thoroughly damp, but not too moist—water should not exude from it when squeezed.

It is then ready for use. Get the bowls, pack the damp fibre into them until they are half full, then place the bulbs in them. Fill up with fibre to within an inch from the top to allow for watering. Press the top fibre firmly down.

Further treatment is the same as that advised for bulbs grown in soil in flower-pots—put away in the dark, etc. When brought out to the light, give the bowl a little twist each day

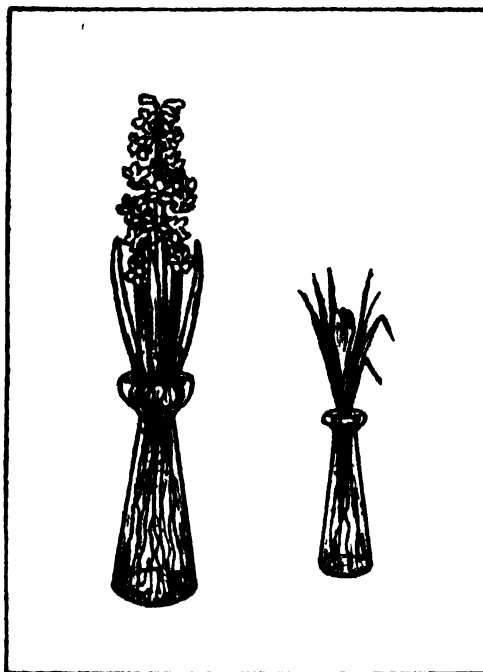


FIG. 22.—BULB AND CORM GROWN IN GLASSES.

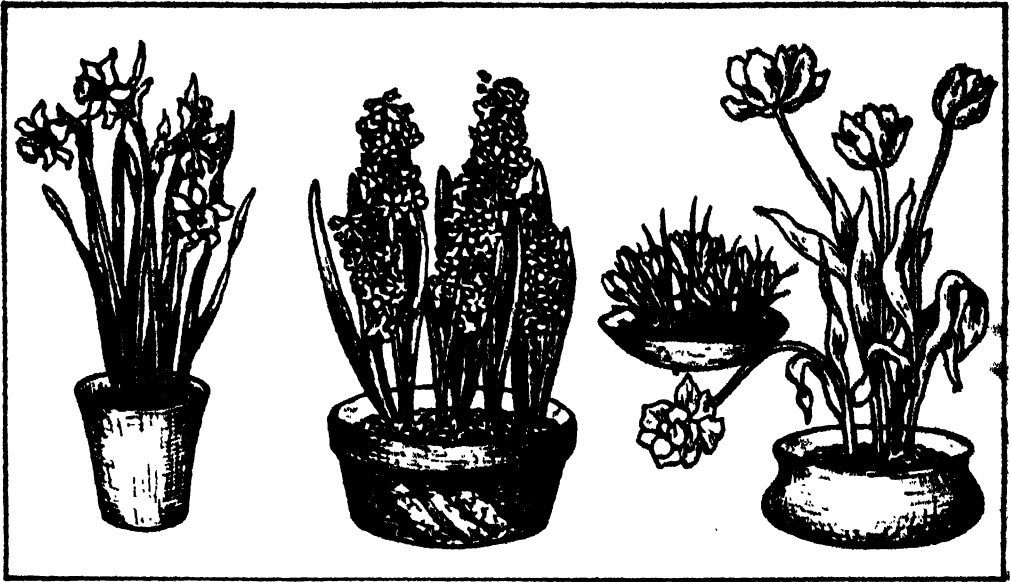


FIG. 23.—BULBS FOR THE CLASSROOM.

so that all parts of the plant may get equal light and air.

Bulbs Grown in Glasses (Fig. 22)

A most fascinating way of growing bulbs is to use the vases made for growing them in water. Hyacinth glasses may be purchased quite reasonably. Acorn glasses may be used for growing crocus corms in water. The illustration shows a bulb in a hyacinth vase. The bulb is put in the curve of the neck, and should be large enough to rest there without slipping into the vase. Therefore good big bulbs should be bought for this purpose.

Fill the glass with water so that it almost but not quite touches the bulb. Rain-water is best. Put in two or three small pieces of charcoal to keep the water pure, so preventing mildew. See that both glass and water are quite clean before using. Bulbs grown in glasses do not need such a cool place as those in soil or fibre.

Some growers say that the bulb must be put away in the dark until the roots are well-grown or the flower will be poor, while others hold the opinion that it does not matter, when the bulb is grown in a glass. As the children love to see the roots growing right from the very beginning, and take great delight in following their progress to the bottom of the glass, the teacher might perhaps put half the glasses away, and keep half out in the light (but not in too strong a light at first). As soon as those in the dark have grown roots long enough to touch the bottom of the glass they too should be brought out. Keep the water at the same level by filling up as it evaporates.

Do not use makeshift bottles or glasses, for the result is seldom good.

Corms Grown in Stones and Water

It is quite easy to grow crocus corms in stones and water. Place the pebbles in the bowl, and put the corms among

them. Cover the stones with water. Do not put away in the dark, but keep in the light.

Hyacinths

When growing hyacinths in bowls it is best to put the same colours together in one bowl as otherwise one or two may blossom before the others, making an uneven show. When very fine blooms are put forth they may need staking, as the heads get very heavy. Roman Hyacinths flower earliest of all bulbs.

Daffodils

Emperor, Sir Watkin, and Golden Spur are good kinds to grow. Grandiflorus also grows well. It is a paper-white polyanthus narcissus. Odorus Campanelle is a very pretty, sweetly-scented narcissus. Its flowers are like little yellow daffodils, all borne on one stalk. It flowers very early.

Tulips

These are often very successful in bowls, but are inclined to grow "leggy." Choose the Duc van Thol varieties, or

Cottage Maid (pink) and Chrysolora (yellow), which are all good for bowl-growing.

Crocuses

It is best to keep the various colours separate as they flower in different order. These flowers love sunshine, and the shooting corms should be put in the sunniest corner.

Scyllas, Snowdrops, Aconites

These tiny bulbs and roots also do well in shallow bowls, and give great pleasure to the children.

Gladioli

Plant these in the New Year, one corm to a six-inch pot. They flower in June, and are very lovely plants to raise.

After Flowering

When the bulbs have finished flowering, take them from their pots and plant them in a corner of the school garden, where their leaves grow long and the new bulbs form and mature. They will flower out-of-doors next spring.

CHAPTER XI

THE SCHOOL GARDEN

Some Sort of Garden Necessary for the Infants. How to Start a School Garden. Seeds to Set. Descriptions of Good Plants for the School Garden: Virginian Stock, Candytuft, Nasturtium, Clarkia, Marigold, Mignonette, Shirley Poppy, Cornflower, Lavatera, Californian Poppy, Sunflower, Canary Creeper, Love-in-a-Mist. Hints to Remember. The Popular Bonfire. Simple Plans Drawn Up for the Planting of Annuals in Small Plots. Perennials. Bulbs Out-of-Doors. A Little Vegetable Garden. How the Children may Share. A Simple Gardening Scheme. Window-Boxes. Pot-Plants.

THE success or failure of the school garden depends on so many things that most teachers do not feel it is worth while to start one. The question of space, good soil, distance from school (if no ground available in playground) and the teacher's own ability to tackle the subject must all be thought of. Nevertheless, whatever the difficulties in the way, some sort of garden ought to be prepared for the little ones, so that they may have the joy of seeing their seeds come up and flower in due course.

In a country school there will certainly be a small plot that can be set aside for the children. In an urban school there will not be much difficulty either, for once a space is cleared the seeds will grow well enough. It is the town school that is most often hard put to it to produce a few flowers, and yet the children there are the ones that need to see them growing more than any others. A sooty atmosphere, no soil, bad conditions all round—how can the town teacher produce any kind of garden at all?

It has been done and can be done again. Where the teacher is, really keen, she and the pupils together can manage to bring a few handfuls of

soil at a time until there is enough either for a small bed or a window-box. The sunniest corner should be chosen, and overhanging trees or buildings should be avoided as far as possible. There are plants such as Nasturtium and Californian Poppy which will bloom in the poorest soil and under the worst conditions. A bright, blossomy corner in the heart of a sooty town is a thing of joy to the children, who will probably bring their parents for a glimpse of their treasure.

Children under seven years cannot be expected to do any serious digging or preparing of the soil for seeds. The teacher must do what is necessary in that way. Dig over the earth in the Autumn. The frost will break up the clods into fine, powdery soil. Do not plant seeds until April, as the young seedlings may get frosted. Rake over the bed and free it from any weeds that have grown up. Then plan what seeds shall be planted.

There is a good choice of Annuals, i.e. plants which germinate, grow, and flower all in one year, dying off in the Autumn. Buy good seeds, as otherwise the results will be poor and the children will be disappointed. The following list gives descriptions of suit-

able flowers, and sets out their different heights, so that the teacher will be able to grow the smaller ones in front and the taller plants behind.

Virginian Stock (Fig. 24A)

A very hardy plant about eight inches high. Small flowers of white, pink, crimson, and yellow produced in great numbers. The "hundreds and thousands" of the plant world. Excellent as a border edging, and much beloved by children.

Candytuft (Fig. 24B)

Another hardy plant, growing about a foot high, and producing fine heads of small flowers, pink, crimson, and white.

Nasturtium, Dwarf or Climbing (Fig. 24E)

A very useful plant as it will grow almost anywhere under any conditions. Has masses of orange, yellow, or scarlet flowers, spurred and sweet-scented. Its quaint round, flat leaves are always liked by children. Grows about nine inches high and is good for a border edging.

The Climbing *Nasturtium* likes to wander up trellises, fences, walls, and so on, producing its bright flowers as it does so. It will soon cover any unsightly place.

Clarkia (Fig. 24F)

One of the prettiest of the Annuals, very graceful and elegant. It has flowers of pure white, lilac, pink-mauve, salmon-pink, and crimson carried in tall spires. It grows about 2½ feet high.

Marigold (African) (Fig. 24K)

Always a favourite with children, who love its bright orange blossoms. It is easy to grow and is not particular about its soil or treatment. Its height is about 1½ feet.

Mignonette (Fig. 24C)

This old-fashioned favourite is also easy to grow, and its delicious scent makes up for its not very showy, red-green flowers. In height it varies from 9 inches to 1½ feet. If grown thickly it does not grow very tall.

Shirley Poppy

This is one of the most attractive of the hardy Annuals, for the children love to see the flowers drop their outer covering on to the ground, and shake out their crumpled dresses to the sun. They like the poppy heads afterwards to play "pepper-pots" with. It grows about one foot high, and in varied colours—white, pink, and red.

Cornflower (Fig. 24H)

This pretty flower grows about 1½ feet high and flowers in blue, purple, and white.

Lavatera (Cultivated Rose Mallow)
(Fig. 24J)

This is a tall plant growing 3 feet high, so it is useful to put at the back of the plot. It is covered with pink or white blooms in the summer.

Eschscholtzia (pronounced Escolshia) or Californian Poppy (Fig. 24D)

This is one of the easiest flowers to grow, and makes a fine show. It may be grown as an edging, or separately.



Fig. 24 — ANNUALS.

(a) Virginian Stock. (b) Candytuft. (c) Mignonette. (d) Californian Poppy. (e) Nasturtium. (f) Clarkia. (g) Sunflower. (h) Cornflower. (i) Mallow. (k) Marigold. (l) Love-in-a-Mist.

It is 1 foot in height, and is covered with bright yellow poppy-like flowers very soft and silken to the touch. The children love them because they push their calyxes off like little green nightcaps. They form long seed-cases which are easy to strip off and keep for the following year.

Sunflowers (Fig. 24G)

Sunflowers may be bought to grow from 3 feet up to 10 feet. The Giant Sunflowers are great favourites, for their large blooms seem like friendly faces to the children. They form hundreds of seeds much liked by the finch family, so the heads should be saved and ripened off for the bird-table. Put these flowers at the back of the plot.

Canary Creeper

This is a pretty little yellow-flowered creeper, canary-coloured, as its name tells us. It will climb all the way up the fence or wall at the back of the plot, or ascend a post or stake, sending out dozens of its bright yellow flowers.

Love-in-a-Mist (Fig. 24L)

A very charming flower, in colour a soft blue. Its foliage is much cut up and gives a misty green effect. It grows about 1½ feet high.

Hints to Remember

Do not sow thickly, or the plants will come up in a crowd and lack sufficient light and air, growing weakly and small. Sow as thinly as possible in a shallow drill, and lightly cover with fine earth. It is best to sow after a rain-shower, but if not, water the earth beforehand.

If the seedlings grow too thickly together thin out. It is better to have a few very fine plants than a great many weakly ones. The edging plants need not be so much thinned out, as a good thick, continuous border is pretty. Never thin out Virginian Stock.

Keep the seedlings well watered in dry weather, and see that the bed does not become choked with weeds. The children will love to take their share of the watering, and the teacher will have to see that the garden plot does not become a swamp. It is best not to water the plants in the hot sun; when the children come to school in the morning is the best time.

When picking the flowers, pick them either in the early morning, before the sun is very hot, or in the cool evening. Otherwise they will droop in the vases.

Any plant's flowering period may be lengthened by picking off the seed-pods as they form. This makes the plant send out more flowers in the hope of further seeds being formed—for the whole aim and object of the plant is to make seeds to carry on the race.

When seeds are allowed to form for purposes of collecting for the following year, only take the healthiest and biggest pods or cases. Put them in envelopes on which the children have previously drawn and coloured representations of the flower, and store them away for next spring.

When the plants have finished flowering in the Autumn, pull them up and have a bonfire. This is one of the most popular moments in gardening. Dig over the bed, then leave for the frost to break up once more.



Fig. 25.—PERENNIALS.

(a) Hollyhock. (b) Foxglove. (c) Lupin. (d) Michaelmas Daisy. (e) Columbine. (f) Phlox. (g) Oriental Poppy.

Simple Plans for Planting out Small Plots

Here are a few simple plans for the planting of Annuals in small plots.

1. Sunflowers.
Shirley Poppies.
Candytuft.
Virginian
Stock.

Front of bed.

2. Cornflowers.
Clarkia.
Candytuft.
Dwarf
Nasturtium.

Front of bed.

3. Cultivated
Mallow.
Love-in-a-Mist.
Mignonette.
Virginian Stock.

4. Sunflowers.
Cornflowers.
Marigolds.
Californian
Poppies.

5. Canary
Creeper.
Shirley Poppies.
Mignonette.
Dwarf
Nasturtium

6. Climbing
Nasturtium.
Clarkia.
Candytuft.
Californian
Poppies.

If the bed lies between two paths, put the taller plants in the middle and have dwarf edgings both sides. Thus:

Dwarf edging of Virginian Stock.
Line of Candytuft.
Cultivated Mallow or Cornflowers.
Line of Marigold.
Dwarf edging of Virginian Stock.

Perennials

We have only spoken so far of annuals for the school garden. Bien-

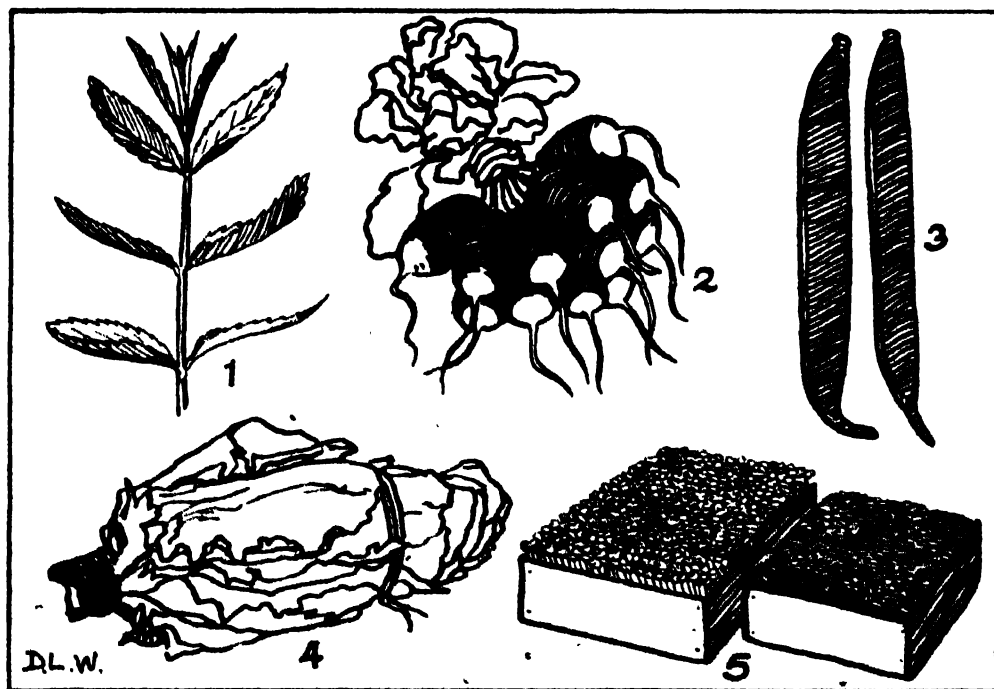


Fig. 26.—PRODUCE FROM THE INFANTS' VEGETABLE GARDEN.

(1) Mint. (2) Radishes. (3) Runner Beans. (4) Lettuce. (5) Mustard and Cress.

nials are those plants which do not flower the first year, but will the second, such as Wallflowers. Perennials are those that come up year after year and flower each time. These are useful to have in a border because, except for cutting down in the Autumn and occasionally dividing, they more or less look after themselves. They can be grown from seeds, but the quickest way of getting good flowering perennials is to beg them from someone's garden when they are dividing up the roots in the Autumn, or to go to the parks at the same season, and get some roots for nothing from the park-keeper.

Here are some perennials which are always liked by children.

Hollyhocks, Foxgloves, Oriental Poppies, Columbines, Mrs. Sinkin's Pinks, Lupins, *Doronicum* (like large, long-stalked yellow daisies), Phlox, and Michaelmas Daisies. (See Fig. 25).

In the early Spring such plants as Double Daisies, Pansies, Violas, Primroses, Polyanthus, and Forget-me-not may be bought cheaply from the barrows.

Bulbs Out-of-Doors

Try to grow some bulbs either in the grass (where daffodils, snowdrops, crocuses and bluebells all look their best) or in a little plot where they need not be disturbed but may go on multiplying year after year. Remem-

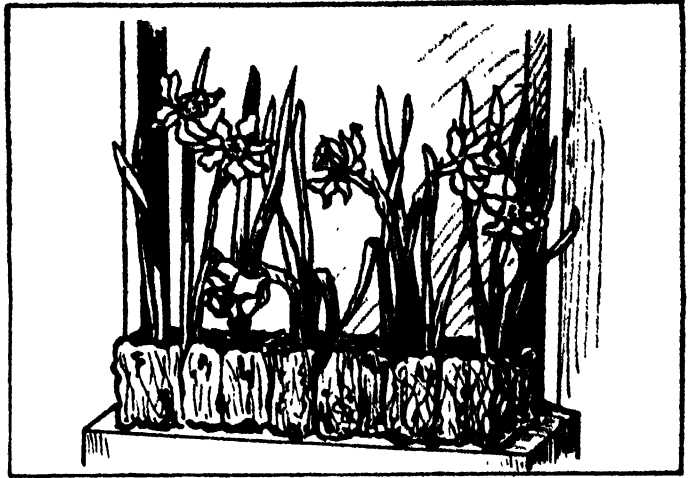


FIG. 27. — A SMALL WINDOW-BOX.

ber that a mass is better than a few here and there.

A Little Vegetable Garden (Fig. 26)

Sometimes the teacher may like to encourage her children to grow such things as Mustard and Cress, Radishes, Lettuce, Mint, and Runner Beans. They are all easy to grow, and give much pleasure to the children because they can be eaten. For little children a flower garden must always have preference over a vegetable garden, but there is no reason why a little of each should not be tried, in schools where there is plenty of garden-space. It gives more scope to the children, widening their gardening horizon considerably.

How the Children may Share

A Simple Gardening Scheme

Talk about gardens and flowers, butterflies, bees, and birds. Wouldn't it be lovely to have a school garden of their very own? Have any children

ever had a bit of mother's garden for their own? What did they grow in it? What flowers do the children know? Bring out a well-coloured flower catalogue and find in it some of the flowers spoken of. Choose what to have. The most forward children may copy the names and the best list will be the one chosen by the teacher to take with her when she goes to buy the seeds.

Take some of the children to buy the seeds. Take these to school and show the packets. Now what about the garden? That must be got ready. Choose the plot. Let the children help as much as they can in getting it ready. Steady-handed children can plant the smaller seeds, and the others may plant the bigger ones, such as Nasturtium and Sunflower.

Make out a list of those who are to water the garden. Make a garden-chart to show which seeds come up first, and record their progress.

Let children pick off seed-pods in the Summer to give plants a longer time to flower. Let them collect the ripe seed-pods in the Autumn and place them in school-made envelopes which have a coloured picture of the flower on, either done by the children themselves, or cut out from a catalogue and pasted on. Let them pull up the old plants, and make a heap of them. Let them dance round the bonfire.

Window-Boxes (Fig. 27)

Those schools that cannot possibly

manage to have a garden should try a window-box. A fairly deep box, long and narrow, is needed and could possibly be made by one of the boys in the Upper School. Make drainage holes in it with a red-hot poker. Cover the bottom with bits of broken flower-pots (a neighbouring florist will give these for nothing, probably, when told what purpose they are for). Then put a layer of cinders or pebbles; then as good soil as can be got. Fix on the window-sill. Plant Virginian Stock, Nasturtium, Eschscholtzias or Candytuft in as a start, and if these do well, branch out into other kinds of flowers the following year. Bees and butterflies will probably visit the box, even though it may be in the heart of a town, affording the children much delight.

Choose as warm a window-sill as possible, and water the plants well, but not too much.

Daffodils, crocuses, or tulips may also be grown in window-boxes and make a lovely show.

Pot Plants

Bulbs in pots have already been described in the chapter on that subject. As well as bulbs, plants such as Mignonette and Candytuft may be grown in pots. Plant the seeds there, place in a sunny window and water when needed. Many experiments with different pot plants may be tried, and a fine show of flowers obtained.

CHAPTER XII

GERMINATING SEEDS IN THE CLASSROOM

Bean Seeds—Four Experiments. Peas. Mustard and Cress. Other Seeds. Acorns. Little Trees. Baby Buttercups, Thistles, and Dandelions.

ALL children like to see the miracle of a plant growing from a tiny seed. Their impatience for results makes the teacher wish fervently that there were seeds which could be planted, germinated, could bear flowers, and make seed all in one day. This is impossible, but fortunately there are seeds such as mustard and cress which will germinate very quickly.

The following are some of the well-known ways of germinating seeds in the classroom.

Bean Seeds

(a) Roll up a piece of clean blotting paper to fit a cylindrical lamp chimney exactly. Stand the chimney in a saucer of water. Place the seeds between the paper and the glass. Put a little glass plate or small saucer over the top of the chimney so that the inside is kept damp. (See Fig. 28.)

The bean will put out root and shoot and may be easily observed by the children. If a record is kept on a chart showing the bean at various stages of its growth, it makes a valuable summary.

(b) Get a glass jar and a cork to fit it. Make a hole in the cork through which a knitting needle may pass. Place a bean (previously soaked for twenty-four hours) on one end of the knitting needle, pass the other end

through the cork, and put the cork in the bottle, the bean being suspended in the bottle in mid-air. The bottle should have about two inches of water at the bottom. The bean will grow quite well in this position. A large pin or long needle will do instead of a knitting needle. (See Fig. 28.)

(c) A germination jar is easily prepared, and is useful for other seeds besides those of beans. Get a wide-mouthed glass jar. Place a sheet of clean blotting paper round the inside. Then fill up the jar with sawdust or sphagnum (bog-moss), so that it presses the blotting paper and keeps it against the glass. Pour in sufficient water to keep the sawdust. (or moss) and blotting paper damp. Put the beans in position between the paper and the glass. They will grow well, and the children may watch them at all stages of development. Other seeds may also be grown in this way. Put a bean, a sunflower seed, and a pea in at the same time, and let the children see the difference in growth. (See Fig. 28.)

(d) Another germinator can be made from a box without a lid. Take one side right off, and replace it by a sheet of glass, which, instead of being stood straight up, as the removed wooden side did, is slanted inwards to the further corners. (See Fig. 28d.) Two tiny strips of wood may be nailed into

the box to keep the glass in position. Fill the box with moist sawdust or coco-nut fibre. Put in the beans (or peas or other seeds chosen) about an inch below the surface of the sawdust and let them rest on the glass, so that the children may see them all growing.

Peas (Fig. 28)

An interesting way of germinating peas is to put them on corks floating in a jar of water. Take a cork and bore a hole in it. Place a pea (previously well soaked) on the cork. Float the cork on the surface of a jar of water. The radicle will grow through the hole in the cork, to reach the water, and the plumule will develop in the usual way.

Mustard and Cress (Fig. 28b)

These little seeds may be sown on damp flannel, set on a large plate, where they will grow vigorously. They may also be grown on a damp sponge, or wet blotting paper.

Other Seeds

Seeds such as maize, buckwheat, sunflower, marrow, lupin, sweet pea, and onion may also be used for germination purposes. Besides growing seeds in jars the teacher may germinate them in sawdust or coco-nut fibre, but the whole development of the growing plant cannot then be watched. Grass seed will grow in the crevices of a wet pine-cone, and is rather interesting to see.

Acorns

Grow these in acorn-glasses, which may be bought for this purpose. (See Fig. 28c.)

Little Trees

Besides acorns, the children love to grow other little trees. Such seeds as ash, horse chestnut, sycamore, beech, Scots fir, plane, laburnum, hazel, birch and holly are all possible to grow in the classroom. The seed of the beech and oak should be sown in the Autumn of their ripening. If the seeds of the other kinds are kept till the following Spring for planting in pots or boxes, store them in sand.

The children will also like to germinate apple pips, and so on. Let them try everything:—date stones and orange pips, grape fruit pips, monkey nuts and the rest. Some will take a very long time to germinate, and need warmth to start them, e.g. the date.

Plant the little trees in the garden when they get big. If, however, the date or orange is successfully grown it is better kept indoors. Plant bean and pea plants in the garden also, once they are successfully germinated and finished with for observation purposes.

Baby Buttercups, Thistles, Dandelions

Many children like to collect seeds of common weeds such as buttercups and thistles, and plant them in pots or boxes to see them grow. They are used to the mature plants, bearing heads of flowers, and they are much interested to see how a tall, prickly thistle originates in a tiny rosette-like plant, or a fine, large golden-headed buttercup from a minute cluster of small leaves.

Let them also plant the berries of arum, bryony, and so on, and seize the opportunity to dwell on the dangers of eating poisonous berries.

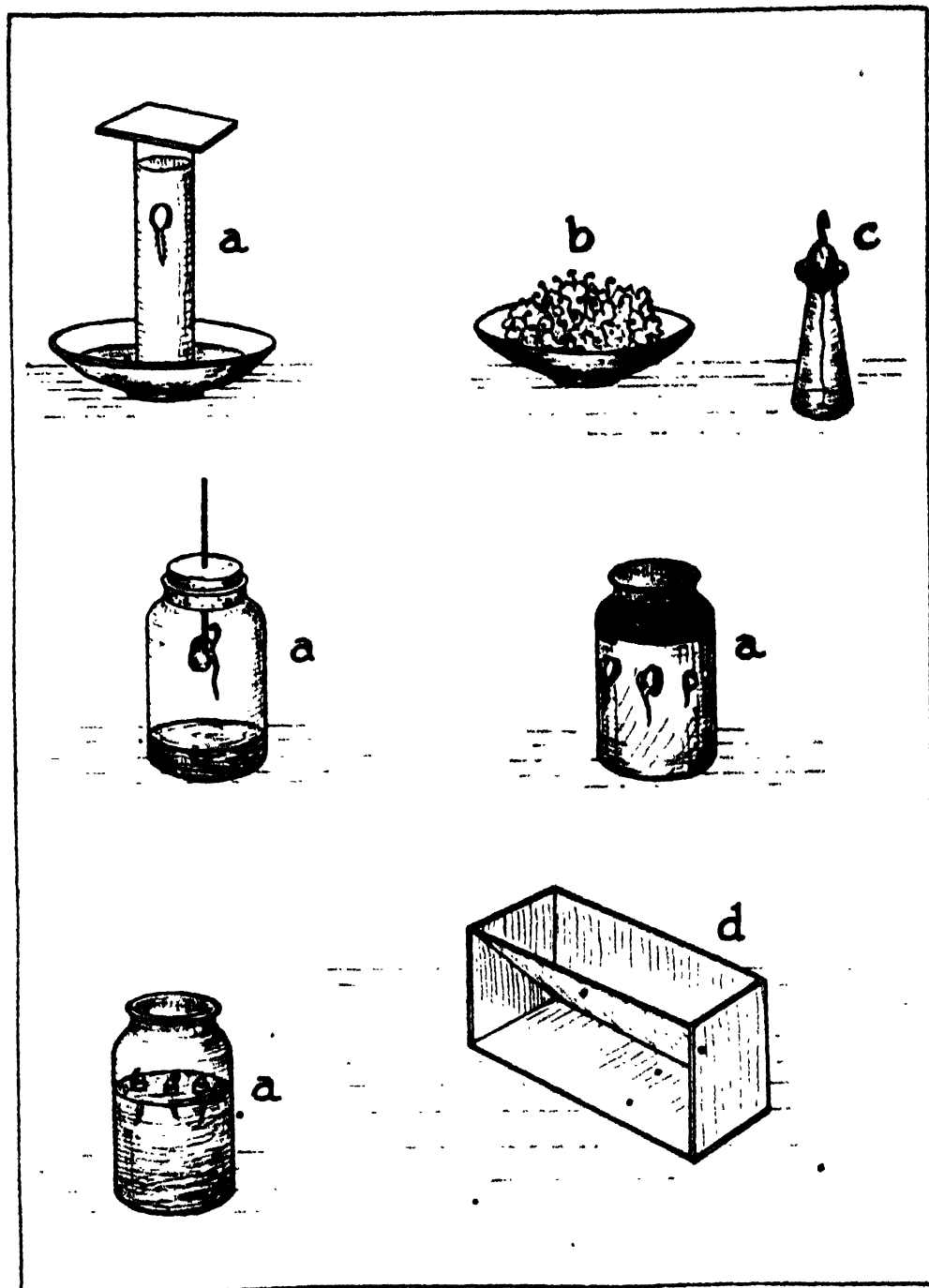


Fig. 28.—(a) PEAS AND BEANS GERMINATING. (b) MUSTARD AND CRESS GROWING ON DAMP SPONGE. (c) ACOORN IN ACOORN GLASS. (d) A GOOD BOX GERMINATOR WITH SLANTING GLASS SIDE.

CHAPTER XIII

SNOW-TRACKS

The Joy of Snow-Tracking. How to Tell the Different Prints. The Cat. The Dog. The Fox. The Stoat. The Weasel. The Badger. The Hedgehog. The Rabbit. The Hare. The Squirrel. The Rat. The Horse. The Cow, Sheep, and Pig. The Deer. Birds.

WHEN the ground is covered with newly fallen snow, and the world is white and glistening, then is the time to look for animal and bird-tracks, and when possible to follow them. Children love snow-tracking, and even the little ones can enjoy some of this, though how much will entirely depend on what Nature they already know, and also on how much the teacher knows herself.

The following hints are for the teacher, who will be able to judge for herself how much her children may learn from them. Many of the tracks mentioned will not be found in certain districts, so the teacher must choose those likely to be found round about the school.

In crisp, newly fallen snow, footprints stand out clearly. They can also be seen in mud, but not so well. The teacher should begin her study by looking carefully at her own prints in the snow. She should first of all walk, then

run, then leap—then let her examine the prints and see the difference in the three tracks.

The Cat (Fig. 29)

It is easy to send the school Cat or home Cat out into the snow, and to see the marks she makes. They are neat footprints, and are seen to be in a straight line, for the Cat places her hind feet in exactly the same spot as her fore feet. Her claws do not show in the tracks, for she has them drawn in when she walks, in order that the sharp points may not be worn down. All animals that wish to walk quietly, either for purposes of stalking others, or avoiding enemies, place their hind feet where their fore feet have trodden, as this neat, close way of walking means silence.

A stalking Cat will not put her fore foot on a twig likely to snap, and as she cannot see where her hind foot will tread, she makes sure that it shall follow her fore foot in safety and

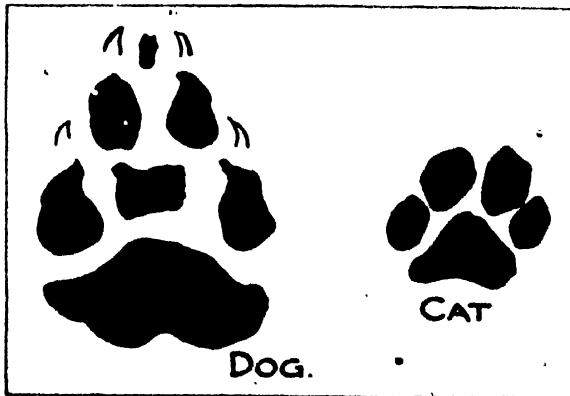


FIG. 29.—FOOTPRINTS OF DOG AND CAT.

silence, in the same spot as the one she chose for that.

The Dog (Fig. 29)

The Dog, like the cat, walks on his toes, but as he does not draw in his claws, these show in his footprints, and can be thus distinguished from those of the cat. Also the dog does not place his hind feet in the same place as his fore feet, so his track is not neat and compact as is that of the cat. He hunts by speed, and not by stealth, therefore that form of walking is not necessary to him.

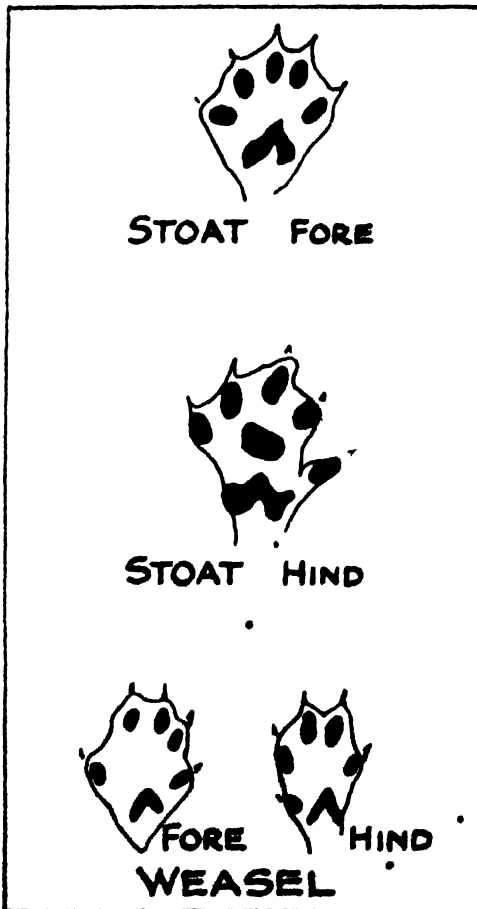


FIG. 28.—FOOTPRINTS OF STOAT AND WEASEL

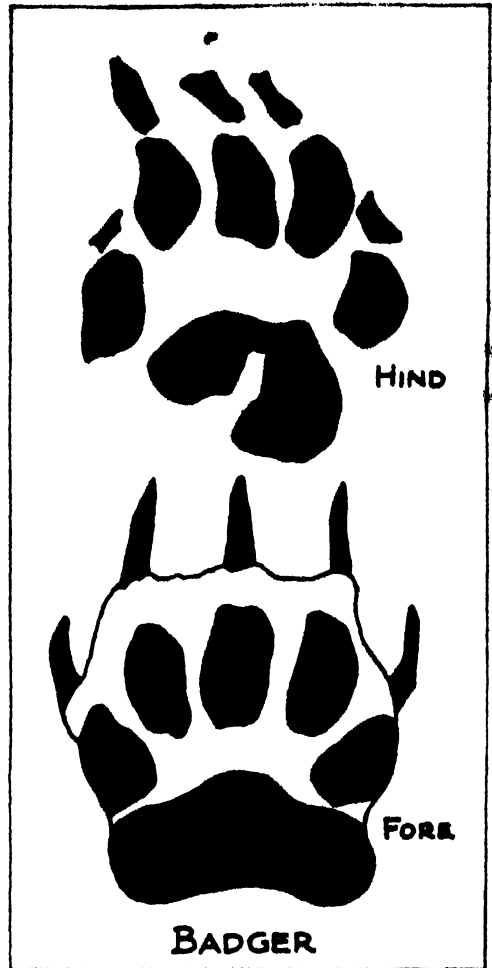


FIG. 21.—FOOTPRINTS OF BADGER.

The Fox

The Fox's track is rather like that of a cat, but the footprints are larger, and show claw-marks, for, like the dog, the Fox cannot retract his claws. They are distinguished from the dog's prints by the fact that the Fox places his hind feet in the imprint of his front feet, as the cat does, and so makes a neat track. Sometimes his tail brushes the ground, and leaves its impress also.

The Stoat (Fig. 30)

The Stoat is another animal that leaves a neat track. When running fast he places his hind feet almost in the same place as his fore feet, and makes a chain of little round marks in the snow, which, on close examination are seen to be four footprints bunched up together. When he walks, the footprints open out, but are still very neat, for he is a light-footed creature.

The Weasel (Fig. 30)

Usually the tracks thought to be a Weasel's are those of a stoat, for when the snow is deep, the Weasel hunts below it. He prefers to travel underground whenever he can, and so he does not very often show his track in the snow, preferring to run through holes, burrows and drains. His marks are a little smaller than the stoat's, and also the space between them is not so long, for he is a smaller animal. He is very light, and often leaves only the marks of his claws in the snow.

The Badger (Fig. 31)

The Badger makes a large track, and the fore feet claws always point straight forward in the direction he is going. The hind feet are rather deformed owing to the Badger's habit of curving them

inwards as he walks. This is plainly shown in the picture. The marks of his hind feet overlap those of his front, and many of the prints will be far from clear. Follow them, and find out where his "sett" (lair) is. If you find black and white hairs about the entrance, you may know that a Badger lives there.

The Hedgehog (Fig. 32)

The Hedgehog is usually sleeping soundly when the snow falls—but sometimes he wakes up and wanders abroad, leaving his prints for us to see. They are long-shaped, with five claw-marks. His legs are very short, so his trailing quills brush against the snow, and spoil many of his prints.



FIG. 32.—FOOTPRINTS OF HEDGEHOG.

The Rabbit (Fig. 33)

These are easily found, for the Rabbit is always out and about, no matter what the weather. His tracks will be found many together, for Rabbits, unlike hares, are sociable creatures. The mistake usually made by the beginner is to think that the Rabbit was going in the opposite direction to that in which he really *was* travelling. This is because he places his strong, powerful hind legs in front of his smaller front legs, thus making it seem as if he were travelling backwards. Any picture of a frightened Rabbit will show the teacher how he places his legs—in leap-frog fashion.

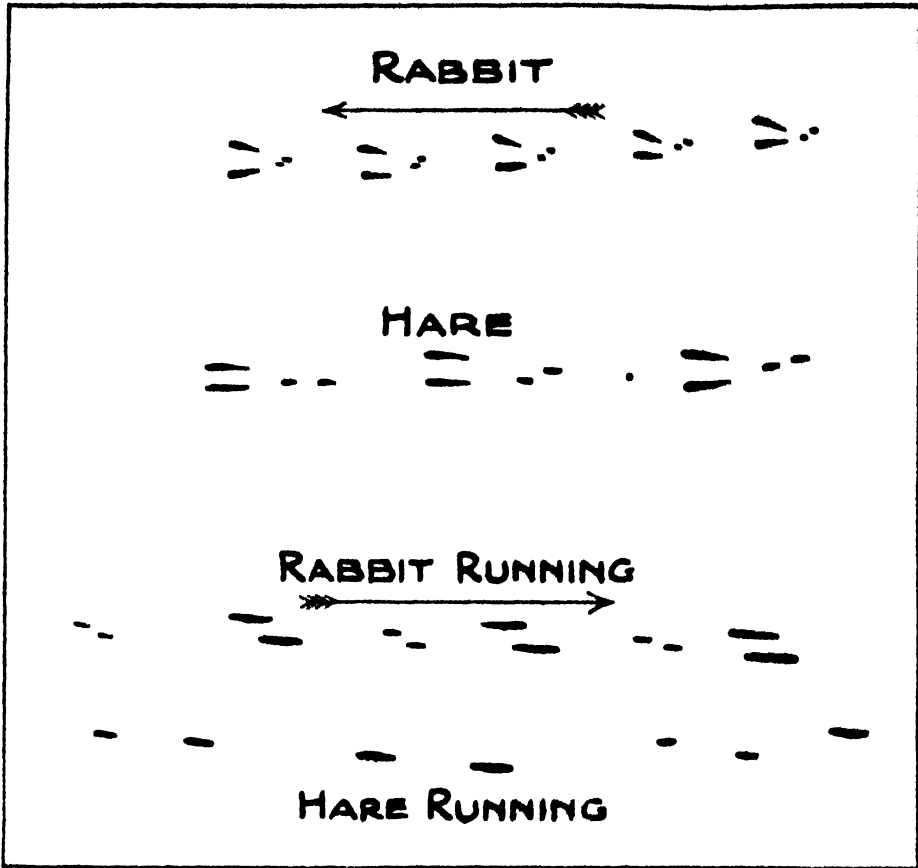


FIG. 33.—FOOTPRINTS OF RABBIT AND HARE.

The Hare (Fig. 33)

The Hare is not a sociable creature as is the rabbit, so his tracks are usually found alone. They are very like the rabbit's, but much larger, and there is a wider space between the prints, for the Hare is a bigger animal. Also the hind feet do not turn outwards quite so much as the rabbit's.

The Squirrel (Fig. 34)

This animal is mainly a tree-dweller, and in Winter sleeps during the cold days—but he sometimes comes out on a sunny morning when the snow is on the ground, and leaves behind his

unmistakable print. His hind foot is much bigger than his front, and therefore, his print is two small feet placed close together, and two larger ones behind.

The Rat (Fig. 35 and 36)

This much-hated creature leaves tracks rather like small hands with the fingers spread out, and tiny claws at the end of them. The hind feet show five digits, the front only four. The fore feet are smaller than the hind feet. Very often the Rat leaves the impress of his tail behind also. When walking his track differs from the one he makes

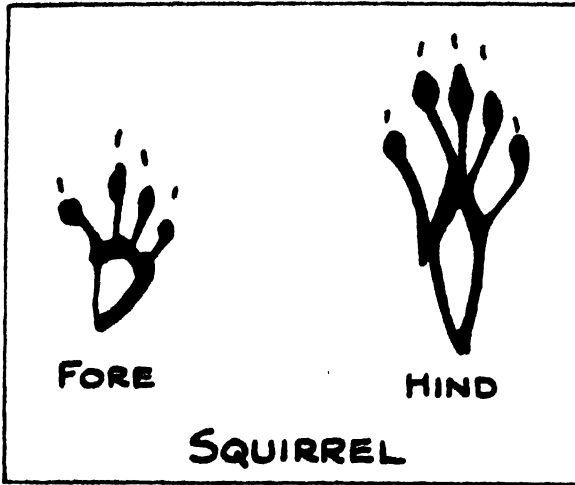


FIG. 24.—FOOTPRINTS OF SQUIRREL.

when he jumps. In the latter case his hind feet come on the outside of his fore feet, all being in a straight line. In the former they are in pairs, one hind foot beside one forefoot, the tracks alternating from side to side, as shown in the picture. The space between the prints are, of course, much wider when he jumps than when he walks.

The Horse

The track of this big animal shows clearly that his hoof is undivided.

The Cow, the Sheep, the Pig (Figs. 37 and 38)

The tracks of these show the cloven foot.

The Deer (Figs. 37 and 39)

The Deer shows a cloven hoof, and also places its hind feet in the same place as its forefeet. This is because it needs to walk in silence, and so escape the vigilance of enemies. The picture shows the difference between the tracks of Deer and farm animals.

Birds (Fig. 40)

There will be very many bird-tracks to be seen in the snow, and even around the bird-table in the school garden there will be discovered many different shapes and sizes.

Hopping birds, such as the sparrow, leave their imprints in pairs. Walking birds, of course, do not. Web-footed birds show their webs in the snow. Birds with long tails, such as the pheasant or magpie, show where their tails brushed the ground. The lark

shows its long back toe. Game birds make very clean-cut tracks, for their feet are big, the toes are widely spread and strongly clawed. The Moor-hen has very long toes. The Coot has lobed toes, which show plainly in the

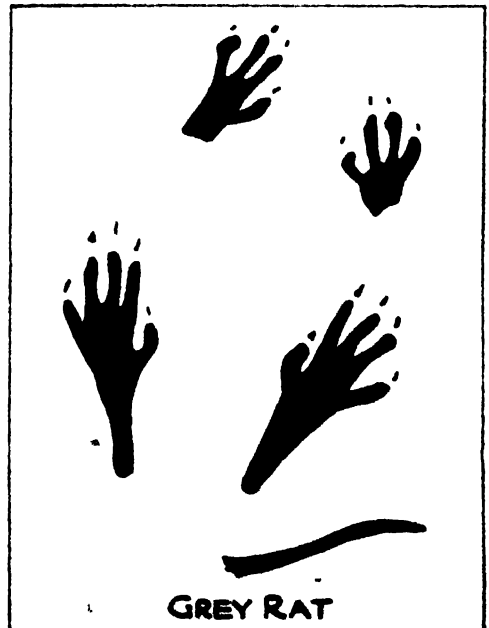


FIG. 25.—AN INTERESTING PRINT, LEFT BY A GREY RAT.

snow. He is a water bird, but has no webbed feet—instead he has his toes widened and flattened out.

The picture shows interesting differences between the feet of birds of varying habits. Land birds show a widespread foot. Tree birds show a closer foot. Birds such as the pigeon, which live both in trees and on land, show an intermediate foot.

The children will be interested to see the different tracks of birds in the snow around their bird-table. They can watch a sparrow or a chaffinch hopping on the snow, and then go to see the tracks made. They can watch the starlings, and see the running

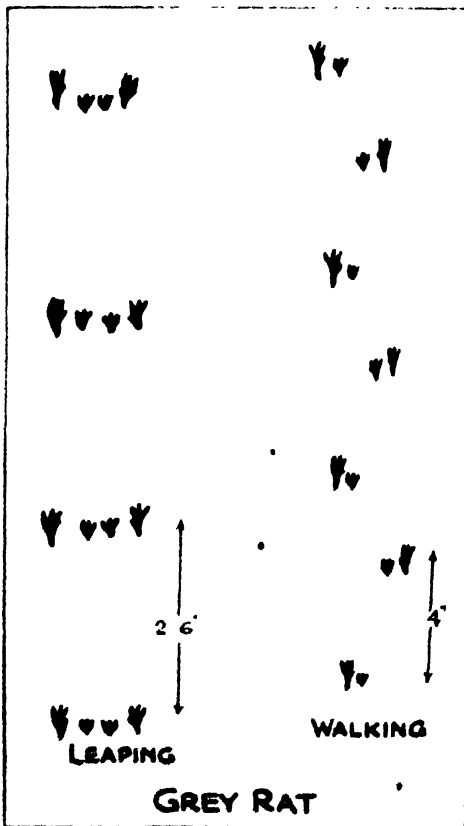


FIG. 26.—FOOTPRINTS OF GREY RAT.

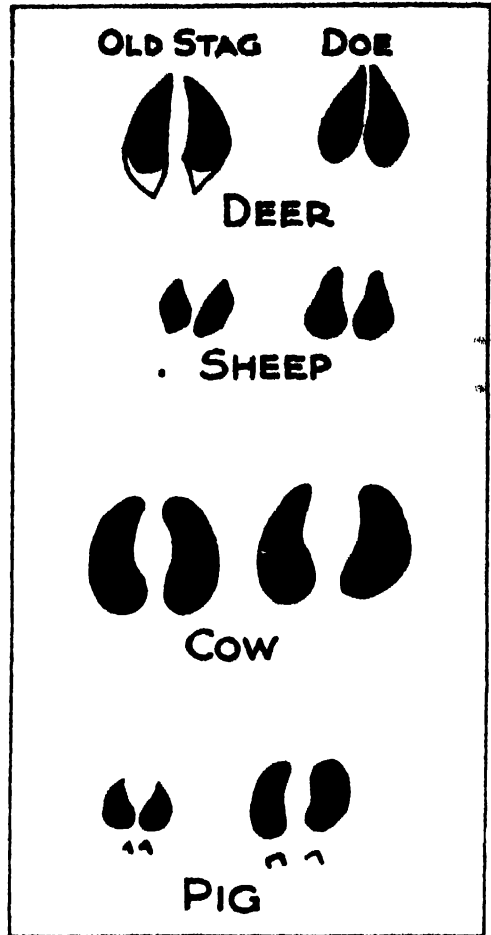


FIG. 27.—FOOTPRINTS OF DEER, SHEEP, COW AND PIG.

tracks left in the snow, comparing them with the hopping tracks of the sparrows.

The Pictures

The illustrations given show typical tracks made by the various creatures named, but those found by the teacher may be a little different. The pace at which the animal is travelling, the quality of the snow, and so on, make a difference to the appearance of the tracks. But it is hoped that the

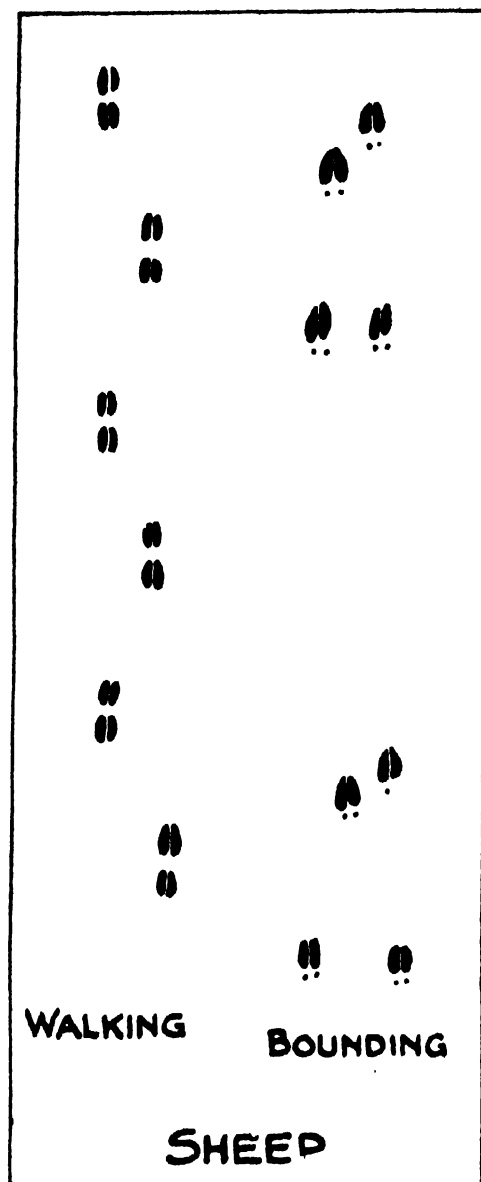


Fig. 38.—FOOTPRINTS OF SHEEP.

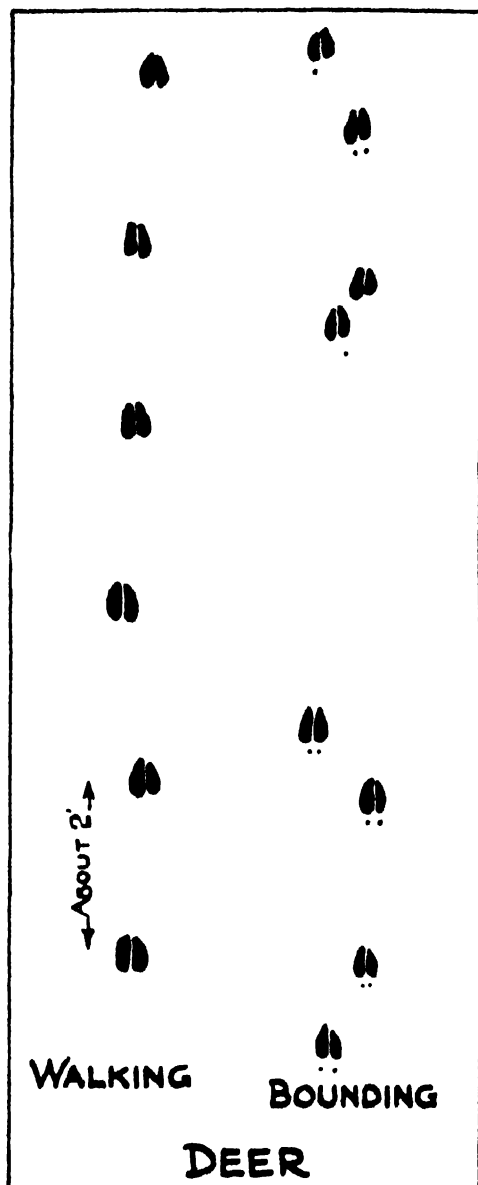


Fig. 39.—FOOTPRINTS OF DEER.

pictures will give sufficient indication to help the teacher to recognise the various tracks she may find. She should provide herself with a note-book on a snowy day, and draw any tracks she finds. A little experience of her own will

teach her more than a hundred books.

Most of the illustrations which appear in this chapter are reproduced by courtesy of Messrs. W. & R. Chambers, Ltd., from Mr. H. Mortimer Batten's book entitled "Tracks and Tracking."

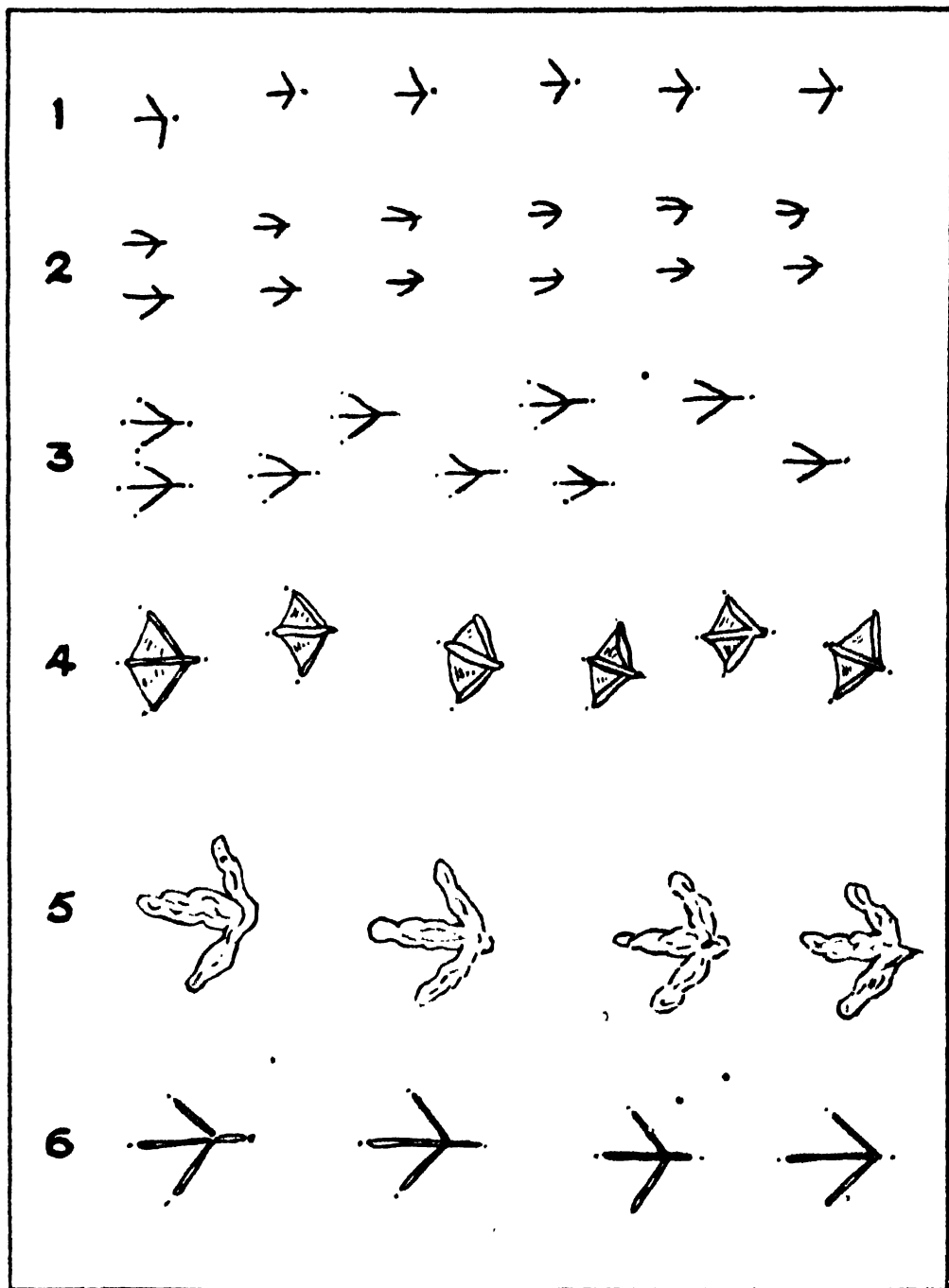


Fig. 60.—BIRD-TRACKS.

1. Land Birds. 2. Tree Birds. 3. Birds that live both on land and in trees. 4. Some Water Birds. 5. Paddle-footed Birds. 6. Water and Land Birds.

CHAPTER XIV

COMMON BUTTERFLIES AND MOTHS

How to Identify them and their Caterpillars

The Differences between Butterflies and Moths ; How to Tell One from Another. How to Take Moths. Our Common Butterflies and their Caterpillars. Our Common Moths and their Caterpillars

THERE is not space enough to deal with very many Butterflies and Moths, but as many teachers are ignorant of the names and appearance of even our commonest ones, and would probably welcome a simple reference list, it is here given.

It would be as well to state first of all the differences between Moths and Butterflies.

1. Look at the antennæ or " feelers " of the moth or butterfly. If they are thickened at the tip, they belong to a butterfly. If they are the same thickness all the way down, or are plume-like, they belong to a moth.

2. The bodies of most butterflies are nipped in at the middle much more than those of moths, which are thick and stumpy.

3. When butterflies are at rest, they fold their wings together in an upright position over their backs. Moths, on the other hand, nearly always spread them out, or let them hang down or else wrap them round their bodies.

4. Most moths fly at night, and butterflies in the daytime. There are a few moths that fly in daylight, however, so this is not a good proof of identity.

How to Take Moths

If the teacher is interested in moths,

and wishes to show the children many different kinds, which, owing to their early bedtime, the little ones are not likely to see, she should place a bright lantern on a stick or pole out-of-doors at night-time. A white sheet should be spread underneath the lamp, so that fallen moths may be easily seen and captured.

The lamp will attract scores of moths, big and little, common and otherwise. The teacher can net them with ease, and put them into a moth-cage till the morning. A smear of honey or treacle serves for food. If eggs are laid in the cage, they should be preserved until the caterpillars hatch out, when all the stages of development may be seen.

Our Common Butterflies and their Caterpillars

The Cabbage Butterflies.—These are very common indeed and will probably be the first that the teacher will name. There are two kinds, the Large White and the Small White. They have white wings with black spots on the front ones (if females). The Large White caterpillar is green, shaded on each side with yellow, spotted all over with black dots from which spring little hairs. The chrysalis is blue-white sprinkled with black dots.



BRITISH BUTTERFLIES

BRITISH BUTTERFLIES

1. The Small Tortoiseshell (Aglais urticae) 2. The Peacock (Aglais io) 3. The Common Blue (Glaucopsyche alexis) 4. The Common Yellow (Glaucopsyche alexis) 5. The Common White (Glaucopsyche alexis) 6. The Common Orange (Glaucopsyche alexis) 7. The Common Red (Glaucopsyche alexis) 8. The Common Black (Glaucopsyche alexis) 9. The Common Grey (Glaucopsyche alexis) 10. The Common Green (Glaucopsyche alexis) 11. The Common Brown (Glaucopsyche alexis) 12. The Common Purple (Glaucopsyche alexis) 13. The Common Pink (Glaucopsyche alexis)

The Small White caterpillars are pale green with a yellow line down the back, and a dotted yellow line down the sides. They have soft down instead of hairs. Both kinds of caterpillars feed on cabbage.

The Orange Tip.—This pretty butterfly appears in the Spring, and as its name implies, has bright orange tips to its front wings. Underneath it is a marbled yellow-green. The female has no orange tips, and might be mistaken for a Small White. It has two crescent-shaped marks on its front wings, however, and these distinguish it from the Whites.

The caterpillar is green with a white stripe on each side of its body. The green-brown chrysalis is long, slender, and bow-shaped.

The Brimstone.—This butterfly is often seen early in Spring, for during the Winter it hibernates in a warm corner, and comes out when the sun shines more warmly than usual. It is a lovely daffodil yellow. The female is not so bright, but is more greenish. The caterpillar is dull green, spotted with black, and has little bristles all over it.

The Peacock.—Another unmistakable butterfly. It owes its name to the peacock-like markings on each of its four wings. These eye-like spots show up well on the lovely red-brown colouring. Underneath the butterfly's wings are quite black. It loves to sit and bask on any warm spot—on ivy bloom in the sun, on the side of an old sun-warmed wall, or on warm stonework in the garden. It often hibernates in the winter-time.

The caterpillars are black with little dots of white, covered with spiky bristles. They are found in hundreds on nettles.

The Large Tortoiseshell.—This is a large red-brown butterfly, spotted with black. There is a row of pretty blue spots at the bottom of the two hind wings. The caterpillars are brown with a wide black stripe on each side, and are covered with bristles.

The Small Tortoiseshell.—A smaller edition of the Large Tortoiseshell. Its hind wings show a definite brown patch, and on its front ones can be seen a white spot near the tip. The caterpillars are found feeding in great numbers on nettles, and are brown-grey with a black line down the middle of the back, and yellow and brown stripes along the sides. Like the Large Tortoiseshells they are covered with bristly hairs.

Red Admiral.—One of our handsomest butterflies. Its wings are a glossy black, spotted with pure white and streaked with very bright scarlet. The bristly caterpillars are yellow-grey with black markings, and have a pale yellow line running along each side. They feed on nettles, but are not found in great companies together as are those previously spoken of. The butterfly is fond of the ivy blossom in October, and may often be found there with its gorgeous wings outspread, feasting on the nectar.

The Painted Lady.—This is a pretty butterfly often found on waste ground where it loves to sit on thistle or clover heads. It has tawny orange wings, the front ones with white-spotted black tips. The hind ones are black-spotted. The caterpillar is spiny and is grey in colour, with yellow stripes down the back and sides. It lives alone in a leafy room which it makes for itself by sticking the tips of two or three leaves together.

The Silver-washed Fritillary.—The wings are a lovely golden brown marked with black spots and streaks. The female has silver markings on the under surface of her hind wings. This is quite a common butterfly in the woods ; it loves to sit with its pretty wings outspread on a bramble blossom, enjoying the honey. The caterpillars may be found on dog-violets, guelder rose, or nettles, and are very spiky. They are black with yellow markings.

The Pearl-bordered Fritillary.—Also a woodland butterfly, but much smaller than the Silver-washed. It is golden-brown with black spots and markings. The underside of the hind wings is bordered with silvery spots. The caterpillars are blackish, and have yellow spines. They have blue stripes down their sides and blue dots on their backs.

The Speckled Wood or Wood Argus.—This is a brown-winged butterfly spotted with buff ; it gets its name from Argus, the Greek watchman who had a hundred eyes, and underneath its hind wings are several eye-like markings. The caterpillar is green, striped with white along the sides and dark brown down its back. It feeds on grass.

The Wall.—This butterfly owes its curious name to its habit of basking on warm walls or posts in the sun. It is very common. It is a brown butterfly with black eye-spots centred with white bordering its hind wings, and two larger eye-spots towards the tips of its front wings. It is marked with paler brown spots and bars. The caterpillar is dark green, and has pale stripes running down each side and along its back.

The Meadow Brown.—This is one of our very commonest butterflies and can be found anywhere in the country,

sometimes by the hundred, so common is it. It is a dark brown butterfly with yellow markings on its front wings, and a black eye-spot near the tip, centred with white. The male does not show the large patch of yellow, but is dark brown all over with a black eye-spot towards the tips of the front wings. The caterpillars are bright green striped with white down each side.

The Ringlet.—This is another woodland butterfly. It is dark, smoky brown, with black eye-like markings. On its underside it has a number of black rings centred with white, from which it gets its name of Ringlet. The caterpillar is green-grey with a light brown head. It has a dark brown stripe down the middle of its back and pale lines down each side.

The Large Heath or Gatekeeper.—Another very common butterfly. It has brown wings with golden-yellow markings, and large black eye-spots centred with white. The caterpillar is green or brown-grey with a dark red line down its back. Its head is grey-brown. Down the sides run pale lines.

The Small Heath.—This is rather like the Large Heath but smaller and lighter in colour. It is very common and likes to fly about in company with the little blue butterflies. The caterpillar is bright green with a darker, white-edged stripe running down its back, and another along its sides.

The Small Copper.—A very brightly burnished butterfly with front wings of coppery red, margined and spotted with black. The hind wings are dark brown, and have a wide band of shining coppery-red along the margin. This butterfly is very common and

mixes with the blue butterflies on the heaths, or in the fields and lanes. The caterpillar is bright green and has red stripes down each side and along its back. There used to be a Large Copper common in the Fens of the Eastern Counties in England, but owing to the draining of this district, the butterfly has become extinct.

The Common Blue.—A well-known and favourite butterfly. There are many Blues, and the Common one is a pretty lilac-blue if a male, but is brown-blue if a female, with a row of orange spots at the margin of the hind wings and sometimes on the front ones too. The male is grey underneath, but the female is brown. The hairy caterpillar is bright green with a dark stripe down its back and a row of small white spots down each side.

The Brown Argus.—This little butterfly belongs to the family of the Blues, but has no colouring of blue at all. It is shining dark brown with a row of orange spots along the margin of both front and hind wings. It is very common on chalky downs and in meadows before haymaking time. The caterpillar is green, covered with short white hairs. It has a dark brown stripe down its back and on its sides.

The Chalk-hill Blue.—This butterfly has beautiful wings of silvery blue shading into dusky margins, spotted with black. The female is dark brown with a row of pretty spots round the margins of the hind wings. It is a common butterfly in the South of England, on chalky downs, hence its name. The caterpillar is light blue-green with yellow stripes down its back and sides.

The Azure or Holly Blue.—A lilac-blue butterfly with narrow black

margins on the hind wings. It is usually the first of the Spring Blues. It gets its name from the fact that the caterpillars often feed on the flowers of holly. They are green with a row of white spots on their backs, and a cream-coloured stripe down the sides. The female butterfly has a much wider black border on her front wings than the male. This Blue is the commonest one around London, but is rather rare in the North, and is not found in Scotland.

The Skippers.—These little butterflies are very common, but are, however, little known; the reason is that they do not look like butterflies, but are much more like moths. One glance at their feelers shows the finder that they are butterflies, for they have the thickened, club-shaped end characteristic of the butterfly family.

The Skippers owe their name to their short, jerky flight giving the impression of leaping or skipping from flower to flower. They have short, stout bodies, broad hairy heads, and dull colouring.

The Grizzled Skipper is one of the commonest. It is dark brown with many little square, cream-coloured spots. *The Dingy Skipper* is a dingy brown with a faint grey band on its front wings. *The Large Skipper* is dark brown with bright red-brown patches on its front wings and red-brown spots on its hind ones.

Our Common Moths and Their Caterpillars

The Garden Tiger.—Everyone knows the caterpillar of this moth, for it is the well-known "woolly bear," covered with bear-like hairs of dark brown. Children always like this caterpillar. It is interesting to keep it in a

cage, and to watch for the perfect insect to emerge from the cocoon, for the moth itself is very beautiful. It is large, and has a red head and body. Its front wings are dark brown with lacings of white, and the back wings are red-orange—a most beautiful colour—with dark brown or blue-black spots. The colouring varies considerably.

The White Ermine.—This is quite a common moth, and a very pretty one. Its front wings are creamy white or pale buff-colour with many little black spots. The dark spots on the creamy ground remind one of ermine, hence the moth's name. The hind wings are white with a black central spot. The head is white and the body is yellow, spotted with black.

The caterpillars are dark brown, rather like small "woolly bears." They can be distinguished from these, however, by the orange line running down their backs.

There is another moth rather like this one, called the Buff Ermine, which, as its name suggests, has darker wings than the one mentioned above.

The Gold Tail.—This is a very pretty little moth; it is snowy white with a tuft of long yellow hairs at its tail—hence its name. The children will like to know that when the Gold Tail lays its eggs, it strips the golden hairs from the end of its body and carefully covers the eggs with it!

The caterpillars are black, and have two brick-red lines running down their backs. There is a bright red hump behind the head. The hairs springing from each side are black, white, and scarlet.

The Lackey.—This is the moth that lays neat bracelets of eggs round the twigs of our apple trees. The moths

vary in colour from light yellow to red-brown. They have two red-brown lines running down their front wings. The caterpillars are rather hairy, with blue-grey heads, two black spots that look like eyes, and bodies striped gaily with red, yellow, blue, and white. These caterpillars often wreak great havoc on trees, for they eat the branches almost bare.

The Vapourer.—This moth is very common, and may be seen in numbers in August and October. It flies in the daytime and has a curious jerky flight, zigzagging about first in one direction, then in another. The male has dull orange-brown front wings with a crescent-shaped white mark in the middle. The female has only small stumps that represent wings, and does not look like a moth at all, but more like a fat grub. She cannot fly, of course. She lays her eggs on the cocoon that she pupated in.

The caterpillars are very handsome and much admired by children. They are grey with orange and white lines, and four tufts of yellow hair on their backs, like little shaving brushes. These, like the Lackey caterpillars, will often strip whole trees of their leaves, and our parks sometimes suffer badly in this way.

The Drinker.—This moth owes its queer name to the fact that its caterpillars drink the dewdrops! The female has yellow wings with two white spots on each fore wing. She is larger than the male, who is darker than she is. The caterpillars are quite common. They are hairy, and dark blue-grey in colour. They have a row of yellow spots on each side of the back and short tufts of white hair between them. There is also a long black tuft at the

front of the body and another at the back.

The Swallow-tailed Moth.—This is a pretty sulphur-yellow moth with little "tails" to the end of its hind wings from which it gets its name. The caterpillar is a "looper"—that is, it does not walk like other caterpillars, but hunches itself up into a loop at each step. When resting on twigs they are very difficult to see, for they stretch themselves out straight like sticks and keep quite still—hence they are sometimes called "stick" caterpillars. They are dark red-brown.

The Emperor Moth.—A lovely and unmistakable moth. The female has light purple-brown wings with white markings. There are four beautiful eye-spots, one on each wing. The male is more red-brown and has tawny hind wings with cream-colour markings. The caterpillar is first black, and then changes to a beautiful apple-green colour, with velvety black rings adorning its body. These rings are ornamented with raised pink spots and black bristles.

The Brimstone Moth.—There is a Brimstone Moth as well as a Brimstone Butterfly. It has wings of sulphur yellow with reddish marks, and is very common. The caterpillars are pale brown with a blue-black spot each side of the neck, and three little humps on their back.

The Emerald Moths.—These are lovely moths of emerald green colour. All have wings of green with whitish markings or lines. The largest moth is the Large Emerald which is quite common. The caterpillars of the Little Emerald Moth are often found by the children. They are green with a row of large red-brown spots down the back.

The Magpie Moth.—This is a very common moth, known to most children. The name, of course, is due to the black and white colouring, but there are also orange bands on the front wings as well. The body is orange with black spots. The caterpillar has the same colouring, and the chrysalis is dark brown with orange bands. It feeds on gooseberry, raspberry, and currant leaves, and the perfect insect sometimes goes by the name of Currant Moth.

The Winter Moth.—From October to January this little moth is on the wing and is very common indeed. The children will often have seen it sitting on the glass of the street-lamps in the winter-time. It is a pale yellow-grey, marked with faint wavy bands. The hind wings are paler. The caterpillars are pale green with a dark line down the back and two white ones on each side.

The Garden Carpet.—There are a great many Carpet Moths. One of the commonest is the Garden Carpet, which may often be shaken from bushes in scores in the summer. It is a pretty little grey moth with grey-brown markings on its front wings. The caterpillar is stick-like, brown or grey in colour, with dark arrow-shaped markings on its back. It is very common.

The Yellow Shell.—A very common summer moth, to be found in scores in any garden. When a bush is shaken Yellow Shells fly out in clouds, pretty little yellow-winged moths with markings and lines of brown. The caterpillar is green with an olive-green line down the back and two white stripes down the sides. Its underparts are often spotted with pink or violet.

The Speckled Yellow.—Another com-

mon moth though rather local in the north. It has deep yellow wings with three or four cross rows of purple-brown blotches. The caterpillar is green and has a darker line down the back, edged on each side with white. A white line runs down the sides.

The Puss Moth.—This is quite common but not very often seen. The caterpillars are often found, however, and are quite unmistakable. Look for them on willow and poplar trees. They are bright green with white and purple stripes on back and sides. The black head is edged with bright red. There is a quaint hump behind the head, and just in front of it are two black spots which look just like eyes, but are not. There are two long horns at the end of the body from which project two thread-like deep-red filaments. The chrysalis is dark red and enclosed in a dense cocoon made of wood chips. The pupa stage lasts for two years.

The moth itself has grey-white wings with darker markings and black spots. The body and legs are covered with woolly hair. When the moth has its wings closed it has somewhat the appearance of a brindled cat, hence its name of "Puss" moth. There are several smaller moths rather similar in appearance, and these are aptly called "Kittens."

The Buff Tip.—This is a beautiful moth and quite common, though hard to see because when it rests on a trunk of a tree, with its grey-buff wings close together, it looks for all the world like a piece of stick. The fore wings are purple-brown, and ashy-grey, and have buff patches at the apex, hence the name "Buff Tip." The underwings are cream-coloured.

The caterpillar is quite well known, and always seems to be in a hurry, rushing along at a great speed. It is large and hairy, brown in colour with many black stripes running along its body. It has a black head with a yellow mark. It often strips trees of their leaves, for the caterpillars feed in crowds together, and soon denude the branches.

The Figure-of-Eight.—A moth the children like to find because of the green-yellow figures-of-eight found on the front wings, two on each. The fore wings are purple-brown or purple-grey, and the hind ones are pale grey. The caterpillar is easy to find, for a search through hawthorn or sloe bushes in early summer will soon result in success. It is pale green or blue, thinly covered with black hairs. There are yellow stripes down the back and the sides.

The Large Yellow Underwing.—A common and beautiful moth. There are several Yellow Underwings, but the Large is the commonest, and may be found anywhere. Its wing-spread is about $2\frac{1}{2}$ inches. The fore wings are buff-brown and the hind wings a beautiful yellow with a black border. The caterpillars are usually brown with a yellow stripe down the back, which has a dark line on each side of it. On the sides there are several black streaks in a row. They feed on such plants as primrose and violet, and are interesting creatures to keep in the classroom, when they will feed on lettuce or cabbage, and turn into shining brown chrysalids. The moth is always a delightful surprise to the children, who love the bright yellow underwings. It has a habit of running about like a mouse in search of a hiding-

place, and will scuttle up a child's sleeve in a most determined manner.

The Red Underwing.—This is a moth quite common in the south of England, and is very large and handsome. It has dark ashy-grey front wings with a spread of 3 inches. The hind wings are lovely, and are a beautiful red, with a broad margin of black, and a smaller black band in the middle. It is difficult to see this moth when at rest, for it closes its dull front wings over its bright hind ones, and looks very like the trunk of the willow or poplar tree it is on. The caterpillar is ashy-grey, and there are usually two wavy stripes down its back, dark in colour. It can be found on willow and poplar trees, and is an interesting creature for the classroom.

The Old Lady.—The curious name of this moth always arouses the children's curiosity. Nobody seems to know why it was given such a queer name, but it was possibly because the colours of its wings are sober and dark, like the clothes of an old lady. It is a large moth, and in colour is dark grey-brown. It is quite common, and likes to hide in the corners of sheds or summer-houses. It is astonishing what a lot of different moths may be found by searching in places such as these. The caterpillar is dull brown-grey, and its body is smooth and velvety. There are many pale lines and markings, and several lozenge-shaped dark spots on the back.

The Silver Y.—No child can walk through a field in the summer without disturbing Silver Y moths at almost every step. They are very common, and may be distinguished by the bright silver Y-shaped mark in the centre of their grey-brown front wings. The

caterpillars are bright green with six fine white lines down the back, and a narrow yellow stripe on each side. They are rather hairy.

The Angle-Shades.—A moth that is very common but difficult to see when at rest, for it folds its yellow-brown, olive-green wings round its body and can hardly be detected from a withered leaf. The caterpillars are dull green or yellow-brown with a white line down the back, and a pale narrow line on the sides. The moth itself may often be taken from ivy blossoms on a warm October evening.

The Orange Underwing.—The fore wings are red-brown, and the hind ones are deep orange with dark border and markings. This moth is not so large as either the Yellow or Red Underwings, but is very pretty. There is another Orange Underwing very much like it called the Light Orange. The caterpillars are dull green with yellow lines down their backs and sides. They are "loopers" like the "stick" caterpillars of the Swallow Tail moth, hunching themselves up into loops when they walk.

The Burnished Brass.—This pretty moth owes its curious name to two broad bands of metallic golden-green on its grey-brown front wings, that gleam and shine like polished brass. It often comes into the room at night-time and buzzes round the light, the brass patches on its wings gleaming brightly. The caterpillars are apple-green with a network of white lines on the back and a wavy line down the sides. They are slender towards the head end but get stouter towards the tail. They have a habit of holding their front legs up in the air when resting.

The Plume Moths.—These are really beautiful little moths, and have their fore and hind wings split up into feathery plumes. The Large White Plume Moth is the prettiest, and the children always love to examine this quaint-looking insect.

The Six-spot Burnet.—A day-flying moth and one often seen, for it is quite common and brightly coloured. It loves flowery meadows and hot sunshine. The front wings are a glossy blue-green with six bright crimson spots. The hind wings are also crimson, and have dark green borders. All four wings have a metallic gleam. The caterpillars are dull yellow with two rows of black spots down the back and another row of smaller ones down the side. The cocoons are often found on grass stems, and are bright yellow, and boat-shaped.

The Cinnabar.—Another pretty day-flying moth, that loves roadside banks and hayfields, and is fairly common. The front wings are a deep green-brown, and have a crimson streak and two crimson spots adorning them. The hind wings are crimson with a narrow black border. The caterpillars are unmistakable, for they are bright orange, and their bodies are ringed round with black. They feed on ragwort and may often be found there in hundreds.

The Common Swift.—There are many "Swift" Moths, so called because of their very rapid flight. They all have long wings, and both fore and hind wings are usually the same length. The "feelers" are very short. Some of the Swifts have a very peculiar flight. They seem to swing in the air, to and fro, to and fro. The Common Swift does not do this, how-

ever. It has yellow-brown front wings with white markings, and ashy-grey hind wings. The female is pale brown-grey. The caterpillars live underground, feeding on roots, and are white with shining brown-yellow heads.

The Ghost Swift.—This moth gets its queer name from the fact that the colouring of its wings—dark brown beneath and glossy white above—renders the moth visible and invisible alternately as its wings are raised and lowered in the dusk. We see the moth when its white side is presented to us, but lose it again immediately when its dark side is shown. The female is not so ghost-like, for she is darker on the upper surface. She drops her eggs as she flies. The male has the peculiar undulating flight referred to previously.

The caterpillars are yellow-white with red-brown heads, and live underground.

The Clearwings.—These are curious moths whose wings are entirely devoid of scales except for a narrow border. They do not look at all like moths. Their caterpillars live on the pith of stems and twigs, so that it is difficult to discover them.

The Currant Clearwing is common in the South of England, and loves to sit about in the sunshine on the leaves of currant bushes. It is small, and the transparent wings are edged with golden yellow. The *Hornet Clearwing* is so like a hornet that many people will not touch it in case it should sting them—but it can be distinguished from its fierce namesake by the fact that its body is covered with soft down, whereas a hornet's body is bare. It is larger than the Currant Clearwing, and is margined with rusty brown.



BRITISH MOTHS.

Photos J. J. Ward

1. Gipsy Moth (f).
4. Death's Head Hawk Moth (m)
7. Emperor Moth (m).
10. Old Lady Moth (f)

2. Lime Hawk Moth (m)
5. Drinker Moth (f)
8. Tiger Moth (f)
11. Pinstriped Hawk Moth (m)
13. Eyed Hawk Moth (f).

3. Swallow-tailed Moth (f)
6. Tappet Moth (f)
9. Vapourer Moth (m)
12. Goat Moth (f)

(m) male (f) female.

The Goat Moth.—This is a large moth with a wing-spread of nearly 4 inches. The front wings are pale grey clouded with brown, and the hind wings are brown-grey. It is quite a common moth, but for some reason or other not generally known. It will come blundering in at the window sometimes, if the curtains are not drawn and a bright light attracts it.

The caterpillar is most interesting to keep in the classroom. It is a great big creature, three or four inches in length, flesh-coloured, with a black head, and a wide band of chocolate brown running down its back. Its body is smooth and thinly scattered with hairs. It feeds in the trunks of such trees as poplar, willow, and elm, and takes three years to mature. Sometimes a dark brown liquid oozes out of its tree-trunk burrow, and this smells rather like a he-goat; therefore the moth was christened "Goat Moth."

When the caterpillar is three years old, it leaves its burrow, crawls down the tree, and goes off in search of a good place in which to pupate. If the teacher comes across it then, and puts it into a cage with shavings, bits of wood, and twigs, it will make itself a big cocoon of these, stuck together tightly with a glutinous secretion. Before it changes to chrysalis form, it will walk in and out of its cocoon for several days, causing great amusement to the children, who regard the big cocoon as a veritable "house."

The Hawk Moths. The Eyed Hawk.—The Hawk Moths are large, sturdy moths, whose name is due to their swift flight. Their wings are long and narrow, and their bodies usually project a good distance beyond their hind wings. The Eyed Hawk is one of the

loveliest of these moths. Its wing-spread is over 3 inches. The front wings are pointed at the tips, and are red-grey mottled with dark brown. The hind wings are rosy red with grey margins and have a beautiful eye-spot in the centre, from which the moth gets its name. The caterpillars are pale green, and have seven white stripes on each side of the body. There is a deep-blue horn at the tail-end. The body has a raised, rough skin.

The Elephant Hawk.—This is quite a common moth, and its name is due, not to the appearance of the moth itself, but to the front part of the caterpillar, whose brown slender body reminds one of an elephant's trunk. Behind this trunk-like part are two round spots looking like eyes. There is a small, pointed horn at the tail-end, black, with a white tip. It usually likes a damp place in which to feed, but may sometimes be found on fuchsia plants in the garden.

The moth is really lovely, with reddish-violet fore wings banded with olive-green, and dark rose-coloured hind wings with a big black patch on each.

The Poplar Hawk.—Another common Hawk Moth, very handsome indeed. The fore wings are grey-yellow or red-brown marked with dark bands and lines. The hind wings have the same colouring and have two large, dark red-brown patches at the base. The caterpillar is yellow-green, and has seven yellow and white stripes on its sides. It is dotted with yellow, and has a horn at the end of its body. As its name tells us, it feeds on poplar trees. It may also be found on willows.

The Lime Hawk.—This moth is common in the south of England. It is a

very beautiful insect with wings of green, yellow, and brown. There are two large patches of dark green at the top of the fore wings, in the centre. The caterpillar is slender in front and is green in colour with seven yellow stripes on each side, edged with red. There is a long curved horn at the tail-end. Its favourite food tree is the lime, but it may also be found on the elm, birch, oak, and on other trees.

The Privet Hawk.—If there are privet bushes in the garden it is probable that the caterpillar of this very large and handsome moth may be found and brought in to the classroom. It is a very big caterpillar, but as it is green, is not easily detected. It grows to nearly 5 inches long. It is pale green with darker sides, and has seven purple stripes on each side, edged with white below. It has a long curved horn at the tail-end, glossy black with a yellow base.

The moth has ashy-grey front wings tinged with pink near the base, and with a large brown patch at the inner margin. The hind wings are pale rosy red banded with brown. The body is very pretty, being ringed alternately

with red and black. The wing-spread is over 4 inches.

The Death's Head Hawk.—This is the largest and grandest of our British moths. It is not very common, yet commoner than most people imagine. Children are much impressed by it and its curious habit of squeaking like a mouse when caught. Its wing-spread may be as much as 5 inches. Its queer name is due to the patch of short yellow hairs on its thorax (part of the body behind the head) which is in the shape of a skull. Another name for the moth is Bee-Tiger, owing to its habit of entering bees' nests and robbing them of honey. The fore wings are dark brown marked with yellow, red, and black lines and blotches. The hinder part of the body is very thick, and is ringed with yellow and black alternately.

The caterpillar is an enormous yellow creature, and may grow to 6 inches in length. It has seven blue stripes on each side, and a yellow horn at the tail-end. When picked up it makes quite a loud chirping noise. It may be found in potato fields, and also on tomato plants, jessamine and woody nightshade.

CHAPTER XV

OUR COMMON TREES AND HOW TO KNOW THEM

A. Deciduous, Catkin-bearing Trees : Hazel, White Poplar, Grey Poplar, Aspen, Black Poplar, Lombardy Poplar, Crack Willow, Goat Willow or Sallow, White Willow, Golden Willow, Purple Osier, Silver Birch, Alder, Hornbeam, Beech, Oak, Larch. *B. Deciduous, Non-Catkin-bearing Trees* : Common Elm, Wych Elm, Ash, Lime, Field Maple, Sycamore, Plane, Rowan, Hawthorn, Horse Chestnut, Elder. *C. Evergreen Trees* : Scotch Pine, Yew, Spruce Fir, Silver Fir, Holly.

Their Buds, Leaves, Flowers, and Fruits

THE Infant Teacher does not need very specialised knowledge concerning trees, as she will not be required to do much more than collect the various twigs for the vases in the classroom, watch the buds producing their leaves, observe the various catkins and other tree-flowers, and draw attention to their fruits. To the teacher of the Upper School are left such mysteries as Leaf-Fall, Transpiration, and so on. It suffices if the Infant Teacher can recognise and name the common trees and their buds, flowers, and fruits.

Nevertheless, it is to the interest of both teacher and children if she follows up the subject and learns all she can of the working of plants and trees, since, though she will not teach her small children this, her knowledge is reflected in the greater enthusiasm that she brings to her work.

There are some teachers who find it rather difficult to recognise our common trees, especially those whose childhood was not spent in or near the country. For these the following simple list and descriptions are given, together with drawings (Figs. 41 to 51) that will help in the recognition of trees. For

more experienced teachers it will serve as a useful summary.

The trees are divided, for convenience, into three main groups—(a) Deciduous (i.e. shedding their leaves annually) Catkin-bearing trees, (b) Deciduous, Non-Catkin-bearing trees, and (c) Evergreens.

A. DECIDUOUS, CATKIN-BEARING TREES

1. *The Hazel*

A well-known tree, always to be found in the hedges and in the copse-woods. It does not grow very high, seldom more than 16 feet, and looks more like a big bush than a tree.

Buds.—Arranged spirally or alternately above leaf-scars.

Leaves.—Large, heart-shaped, and unsymmetrical. Hairy when young, but smooth in the summer. Deep green then, turning to yellow, russet, and brown later. Sometimes the hazel retains many of its leaves throughout the winter, shrivelled and brown.

Flower.—Two, the male and female. The male are the long "lambs' tails" so much beloved by children. They are full of pollen. They grow slowly through the winter days and in January lengthen out into long catkins,

which later shake out their yellow pollen on the breeze. The female flowers are small and bud-like, distinguished from the real leaf-buds by the bright crimson spikes projecting from the tip of the "bud." It is from these bud-like flowers that the nuts grow.

Fruit.—The well-known hazel nut, enclosed in a tight green sheath.

2. *Poplars. The White Poplar*

Poplars are found mostly in the open country. The White Poplar, however, may be found in the woods. It is a tall tree, and the best specimens are found in meadows near a river. Like all poplars, it is a fast-growing tree, and when a quick shelter or screen is needed the White Poplar is often planted.

Buds.—Whitish, due to being covered by a close white down, and close-pressed against the twigs.

Leaves.—Broad, heart-shaped, varying in size from an inch to three inches long. The margin is wavy. The upper surface is smooth and dark green, but the lower is white, due to a thick felting of white hairs, one of the distinguishing features of the tree. Golden yellow in Autumn.

Flower.—The male catkins are borne on one tree, and the female on another tree—never both on the same tree. The long, slender male catkins are purple-red in colour, and about 4 inches long. They dangle and shake in the wind, which blows the pollen in them to the smaller, stouter, green female catkins on a near-by tree, enabling seeds to form. In the spring-time the male catkins shrivel up and fall to the ground, where the children may find them in hundreds.

Fruit.—In the summer-time, when the seed-capsules open to disperse the seeds, the ground beneath the tree is strewn with white cottony stuff from the filaments attached to the seeds.

3. *The Grey Poplar*

A tree rather like the White Poplar, but not so tall.

Buds.—Hairy and grey, pressed against the grey twigs.

Leaves.—Shaped like those of the White Poplar, but not white underneath. The under surface is smooth, or has grey hairs in scattered patches.

Flower.—Furry catkins.

Fruit.—Cottony seeds.

4. *The Aspen*

Another Poplar tree, the smallest of the family. The Goat Moth often hastens the decay of this tree through feeding on the wood.

Buds.—Slightly hairy and sticky.

Leaves.—One of the characteristics of the Aspen is the quivering of its leaves, reminding one of the saying, "Shaking like an aspen." The leaf-stalks are very long, hence the tremulousness when the wind blows. In shape the leaves are nearly round, with evenly cut teeth. They are not large, are dark green, and have no underlining of white down (except on very young leaves). They are always rustling and whispering.

Flower.—Furry, crimson catkins.

Fruit.—White, cottony seeds.

5. *Black Poplar*

The name is due, not to any blackness of bark or leaf, but to the lack of white or grey hairs underneath the leaves. It is a tree of erect growth, with a dark-grey trunk, and often has many sucker

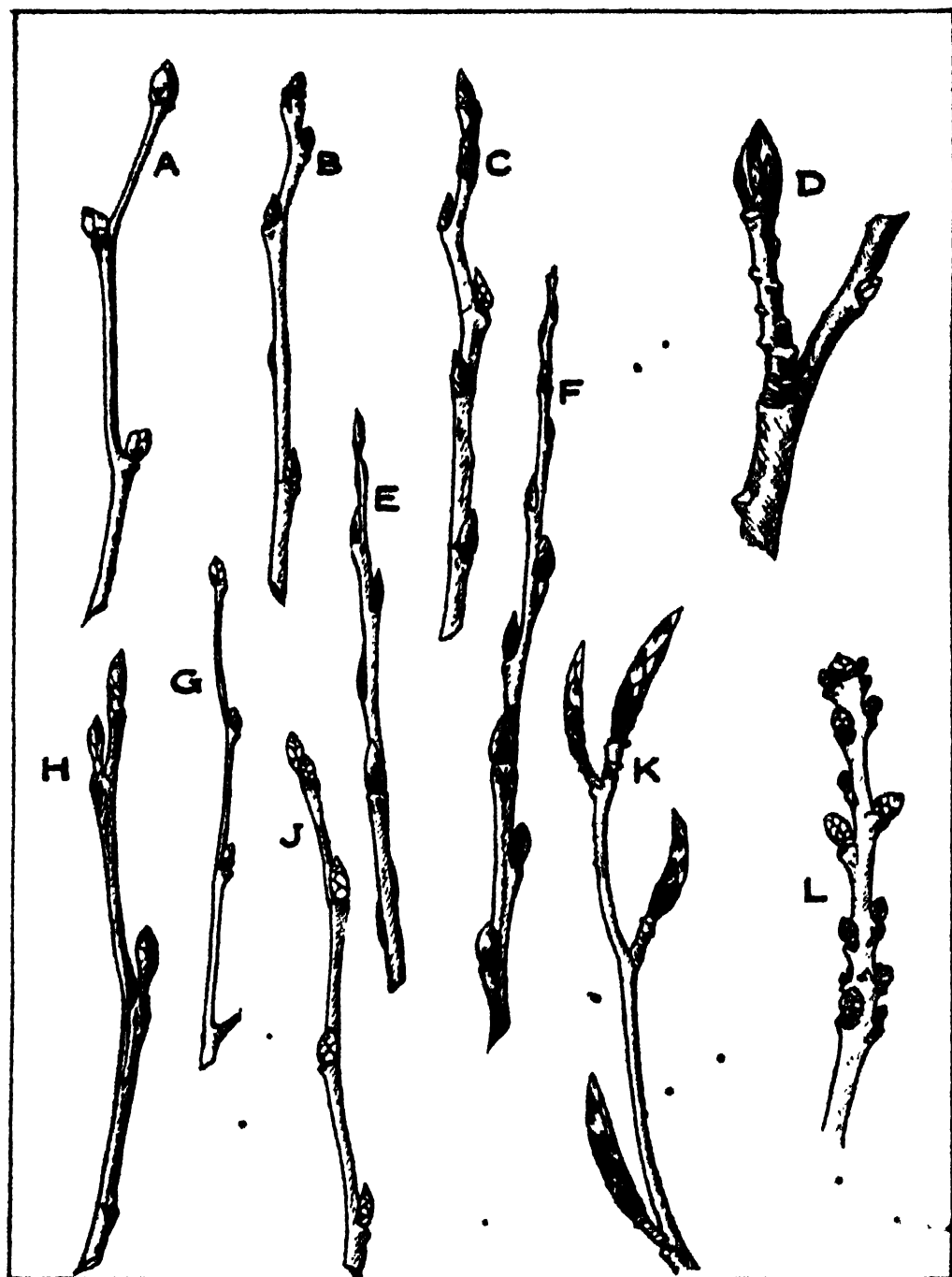


FIG. 41.—BUDS OF CATKIN-BEARING TREES.

(A) Hazel. (B) White Poplar. (C) Aspen. (D) Black Poplar. (E) Crack Willow. (F) Sallow.
 (G) Birch. (H) Alder. (I) Hornbeam. (K) Beech. (L) Oak.

shoots at the base. It is sometimes deformed by ugly swellings on the trunk.

Buds.—Long, brown, sticky, and pointed, tightly pressed against the glossy, tawny-yellow twigs. Spirally arranged, over leaf-scars.

Leaves.—Heart-shaped with rounded teeth. Dark green on both surfaces. Golden yellow in the Autumn.

Flower.—Showy, deep, crimson catkins, very beautiful. The female tree has shorter catkins, which do not droop.

Fruit.—White cottony seeds.

6. *The Lombardy Poplar*

An unmistakable tree, owing to its spire-shape and its great height. It holds its branches stiff and erect, and in the winter-time looks like a giant besom. Its base is often covered with suckers.

Buds.—Sticky brown buds borne on smooth shoots.

Leaves.—Like those of the Black Poplar.

Flower.—Only very few female trees are known. The great majority are male, and bear long fluffy catkins.

Fruit.—None, owing to the fact that nearly all trees are male. The race is continued by suckers or cuttings.

THE WILLOWS

The Willow Family like moist places such as water-meadows or stream-sides. They are often found growing with Poplars, but are readily distinguished from them by the facts that they do not grow nearly so tall, the leaves are borne on short stalks instead of long, and their flowers are insect-pollinated and not wind-pollinated. There are very many different kinds of Willows,

and only the commonest kinds can be mentioned here. The boys will like to know that their cricket bats are made from willow wood.

7. *The Crack Willow*

One of the biggest of the Willow family. The name is due to the twigs, which, if struck smartly at the base will break off readily with a loud crack.

Buds.—Long and pointed, tightly pressed against the stem. Almost black in colour, smooth, and arranged spirally. The twigs are very long and slender, glossy yellow-grey, and very supple.

Leaves.—Lance-shaped, hairy when young, smooth when older, and in colour a pale blue-green.

Flower.—Like the Poplars, the Willows bear their male and female catkins on different trees. The catkins of the Crack Willow are an inch or two long, erect and plump, and do not emerge until the tree is leafing.

Fruit.—Fluffy seeds scattered in June.

8. *The Goat Willow or Sallow*

This tree or bush is well known to children because it provides the much-loved "pussy-palm." The teacher should urge her pupils not to disfigure the trees. Many thousands are annually injured and disfigured by the rough handling they get from people who tear off the branches for the sake of the pretty, soft grey "pussy" buds.

Buds.—Arranged spirally. Both leaf and flower-buds are red-brown, the latter distinguished by their larger size. The emerging catkin is a beautiful grey.

Leaves.—Egg-shaped, the under surface being covered with woolly hair.

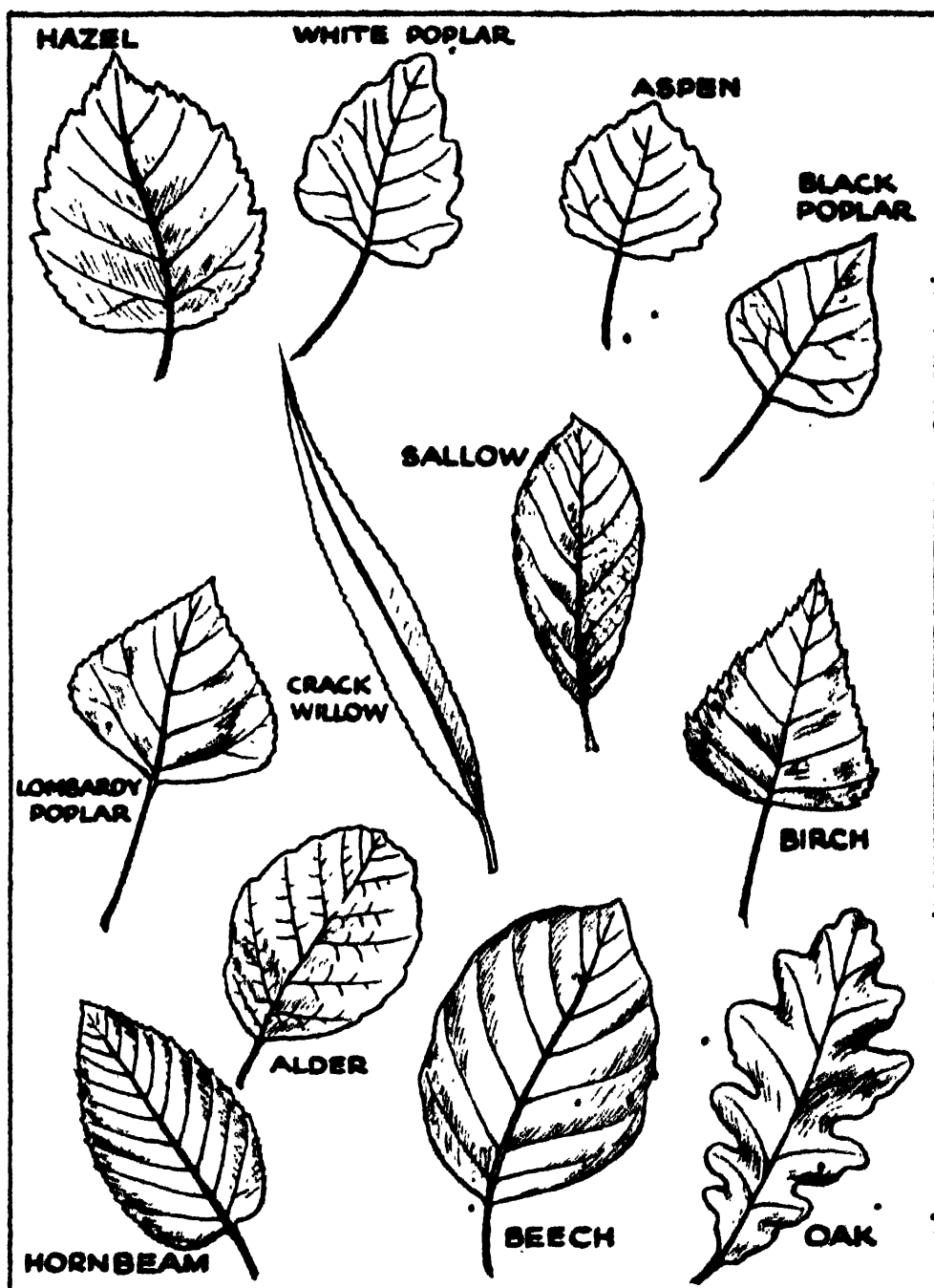


FIG. 42.—LEAVES OF CATKIN-BEARING TREES.

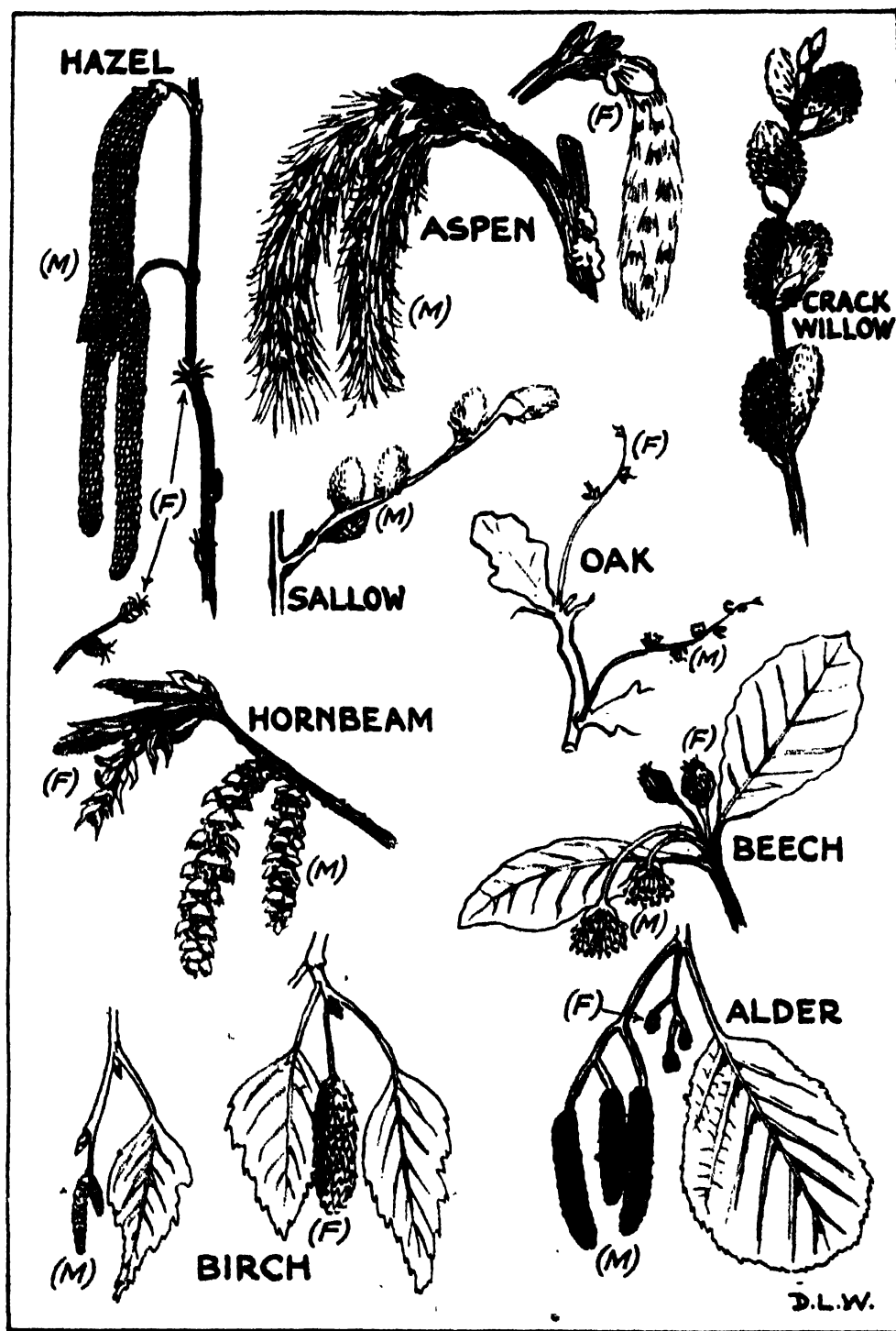


Fig. 43.—FLOWERS OF CATKIN-BEARING TREES.

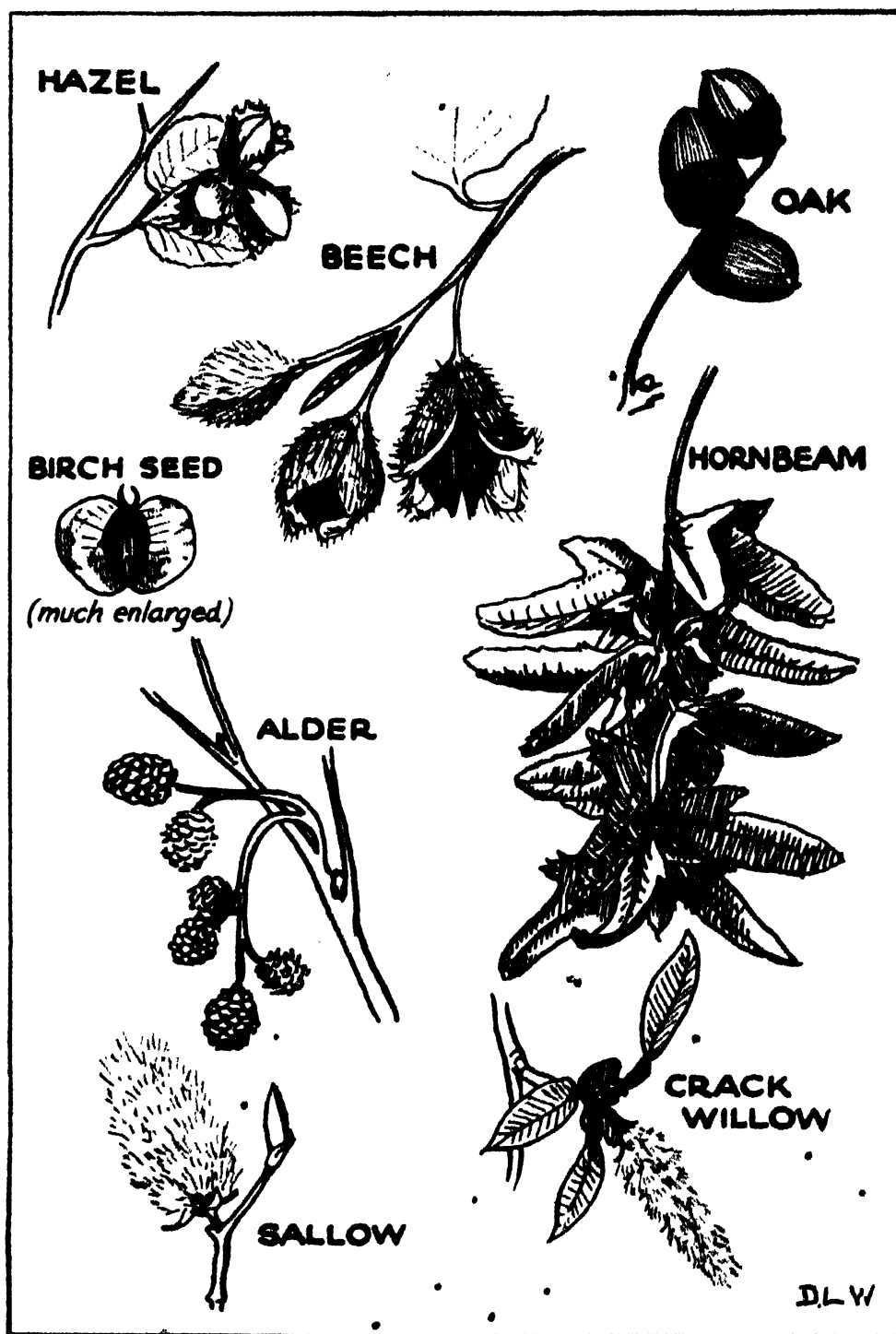


FIG. 44.—FRUITS OF CATKIN-BEARING TREES.

Flower.—The earliest Willow to flower. The male catkins are bright yellow, the female are green.

Fruit.—The seeds are borne by the female catkins, which after being pollinated by insects, grow larger and become more hairy.

9. *The White Willow*

The largest of the family, and a very beautiful member.* The down on the leaves gives the tree a silvery appearance by which it may easily be recognised.

Buds.—Small, red-brown in colour.

Leaves.—Long and narrow, tapering to a point, toothed round the edges. Covered on both sides with silky grey down.

Flower.—Contained in "pussy" buds. Two catkins, male and female. The female are thinner and greener.

Fruit.—Borne on the female catkin.

10. *Golden Willow*

Its name is due to its bright yellow twigs.

11. *Purple Osier*

Identified by its long whip-like stems covered with a purple skin which peels away in one's hand when one tries to pick a stem. This Osier is used for basket-making.

12. *The Silver Birch*

A dainty, fairy-like tree, very hardy. It is slender, and does not grow to any great height. The bark is silvery white or yellow, very smooth, with a satin-like gleam. It peels off readily, and is very tough, so that it is practically indestructible save by fire. The children will like to know that the Red

Indians cover their canoes with Birch bark.

Buds.—Arranged spirally or alternately. Small, red-brown, and pointed.

Leaves.—Very small, oval-shaped, and glossy. Doubly toothed all round. Pale yellow in the Autumn.

Flower.—Both female and male catkins are borne on the same tree, and lengthen as the leaves unfold. The male are dark crimson, and usually in twos or threes, and hang downwards. The female are small and green, erect, and grow singly.

Fruit.—The seeds are borne by the female catkin, and look rather like very small nuts with wings on either side. They may be seen fluttering to the ground in hundreds on a breezy day.

13. *The Alder*

This tree is a cousin of the Birch and the Hazel, and likes to grow near water. It loves to grow on the bank of a stream. It does not often grow into a big tree, but is more often shrub-like. It has a rather gloomy appearance. It keeps its old cones during the Winter.

Buds.—Spirally arranged, and carried on short stalks. They are red-brown in colour and are large and blunt.

Leaves.—Roundish with a wedge-shaped base, toothed all round the edge. They are rather heavy, leathery leaves, of a deep, sombre green.

Flower.—Two kinds of catkins, male and female. The male are long and drooping, rusty red in colour. The female catkins are cone-shaped and green.

Fruit.—Borne by the female catkins, which during the summer grow fatter and red-brown, and become woody.

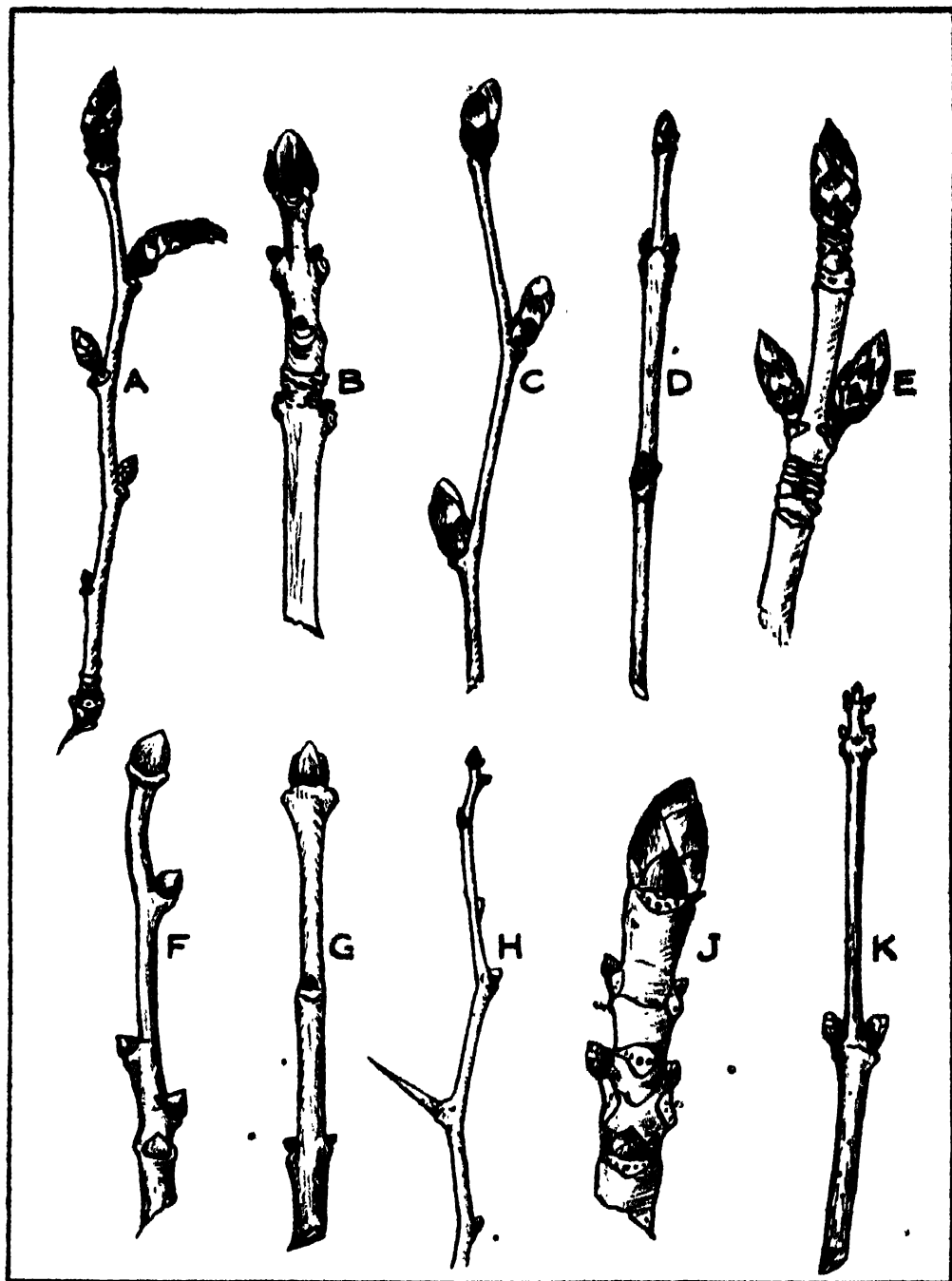


Fig. 48.—BUDS OF NON-CATKIN-BEARING TREES.

(A) Elm. (B) Ash. (C) Lime. (D) Field Maple. (E) Sycamore. (F) Plane. (G) Rowan. (H) Hawthorn. (J) Horse-chestnut. (K) Elder.

They have rather the appearance of tiny fir-cones. The seeds are shaken out, and the empty catkins hang on the branches until spring-time comes round once more.

14. *The Hornbeam*

A little-known but quite common tree, often found in hedges where it forms a thick bushy shrub. It is often mistaken for a beech. The trunk is smooth and grey, spotted with white.

Buds.—Short, broad, and sharply pointed, red-brown and somewhat hairy. They are arranged alternately.

Leaves.—Oval-shaped, tapering to a sharp point. The veins are very strongly marked, and stand up like cord underneath the leaf. The leaves of the Hornbeam are often mistaken for those of the beech, but they are not so smooth and hairy, and are also too pointed. They are doubly toothed. They turn yellow in the Autumn, changing to red-brown in the Winter. Sometimes they hang on the branches until spring-time comes.

Flower.—Two kinds of catkins found on the same tree. Leaves and flowers appear together. Both catkins are green and pendulous, the male being the larger of the two, and brighter in colour.

Fruit.—Borne by the female catkins, which grow large and bunchy, holding many one-seeded, brown nuts.

15. *The Beech*

One of our most beautiful trees, very tall and erect. Its trunk is smooth and grey.

Buds.—Arranged spirally or alternately, spindle-shaped, red-brown in colour, and very long and pointed. The

red-brown scale-covering is pushed off when the leaves unfold.

Leaves.—Oval-shaped with a pointed apex and entire margin. Firm, thin leaves, smooth and green, darker on the upper surface. In the Autumn they become a beautiful tawny colour, warm orange and ruddy brown, a gorgeous sight in the setting sun.

Flower.—Two kinds of catkins borne on the same tree. The male are in a hanging, purplish-brown tassel with yellow anthers. The female flowers are in a sort of little cup which later becomes hard, bristly, and woody.

Fruit.—The Beech "mast" beloved by squirrels. The bristly "cupule" splits into four silk-lined pieces, which turn back and show the three-sided, sharp-edged "mast" or nut.

16. *The Oak*

The King of all our trees, full of dignity and grandeur.

Buds.—Arranged spirally, with a cluster at the apex of the twig. Warm red-brown in colour, thickset and rounded.

Leaves.—Late in unfolding. Feather-shaped with margins deeply waved into fingers. Glossy dark green in Summer, turning pale brown in Autumn. They hang on the branches for a long time, till the new buds push them off.

Flower.—Two kinds of catkins produced on the same tree. The male is slender and pendulous, and has bunches of small yellow stamens. The female is stouter and grows erect, containing one or more cupules.

Fruit.—The well-known acorn, sitting in the cup.

Oak-apples.—It may be mentioned here that "oak-apples" are not any

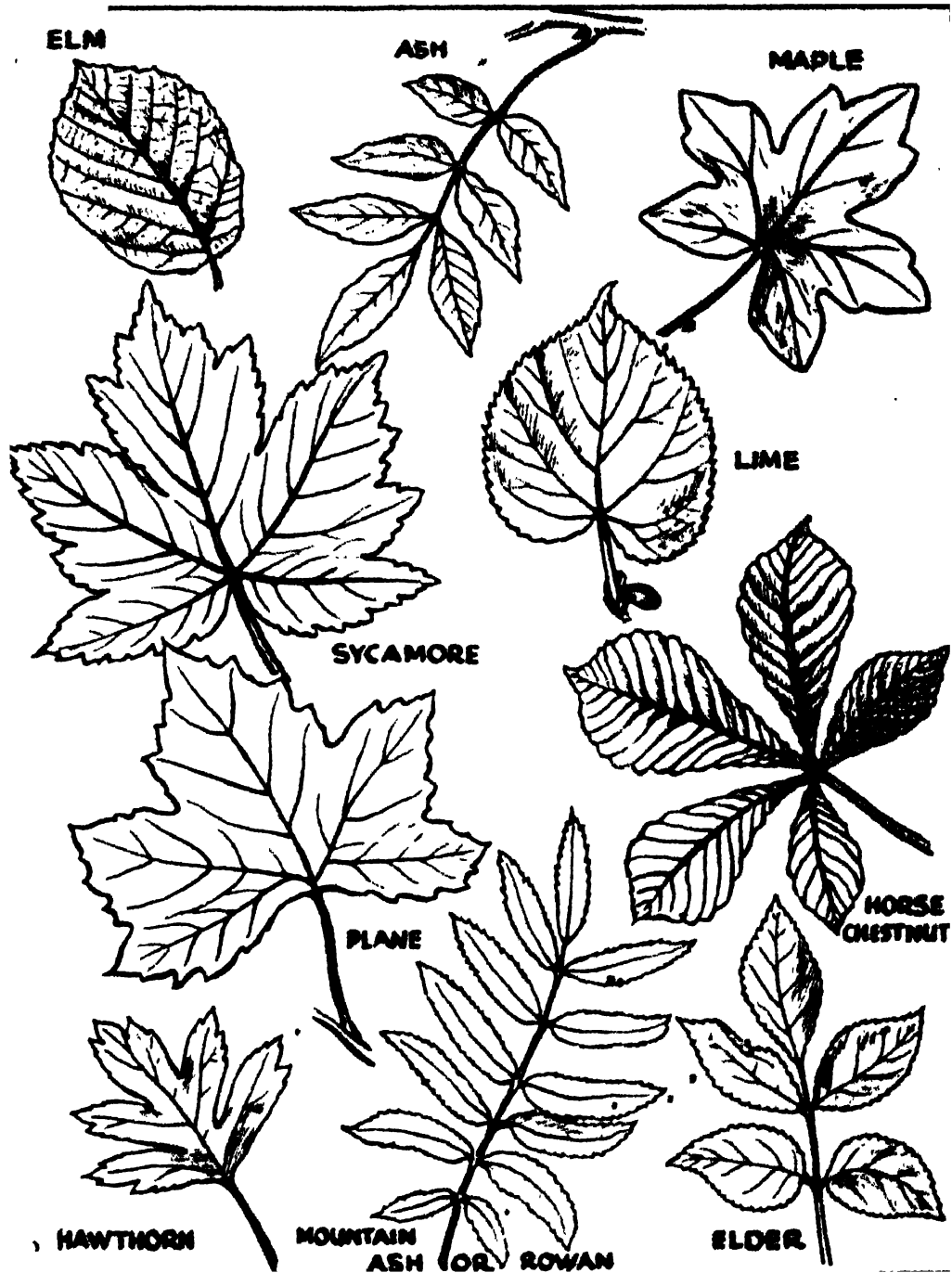


FIG. 46.—LEAVES OF NON-CATKIN-BEARING TREES.

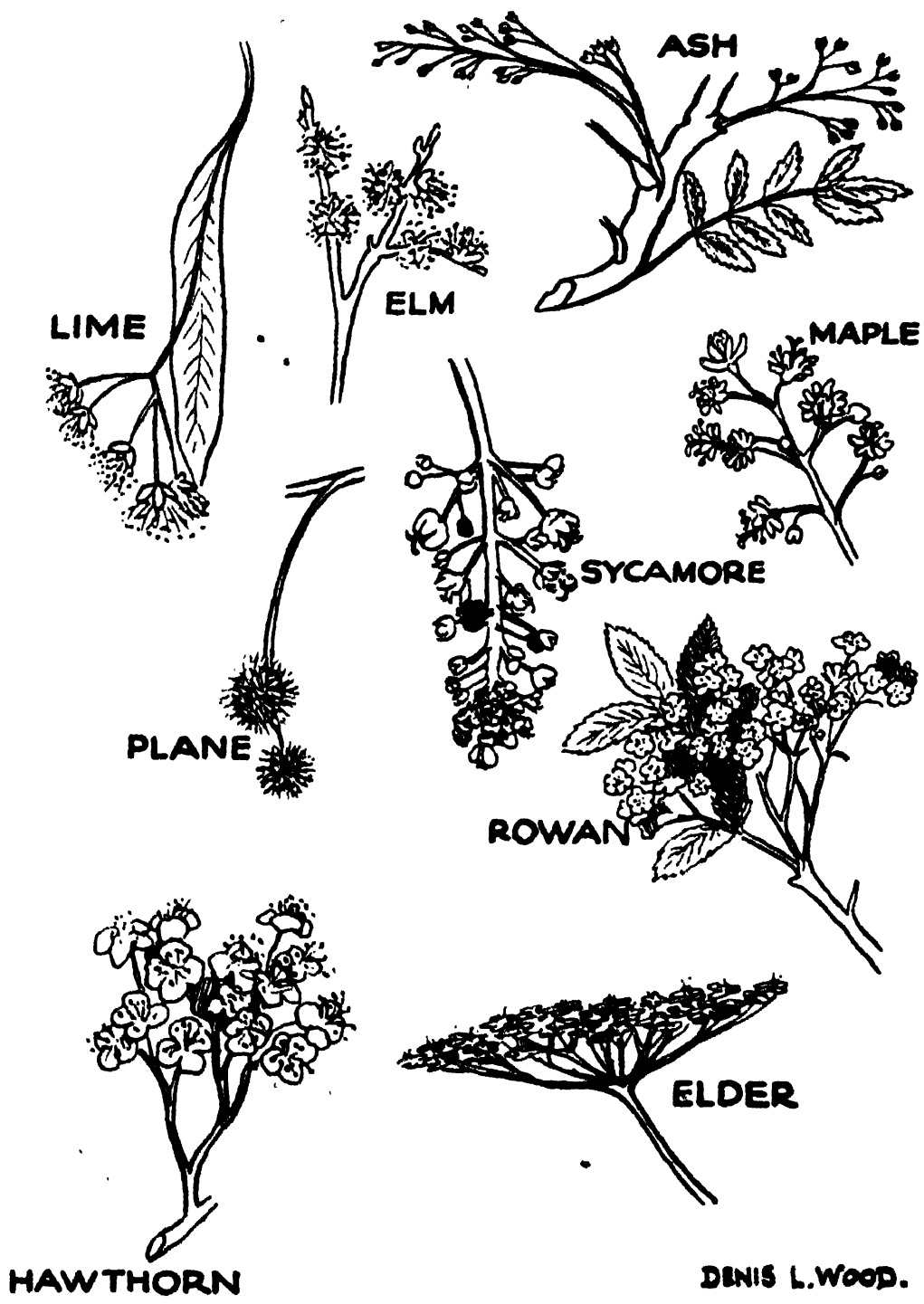
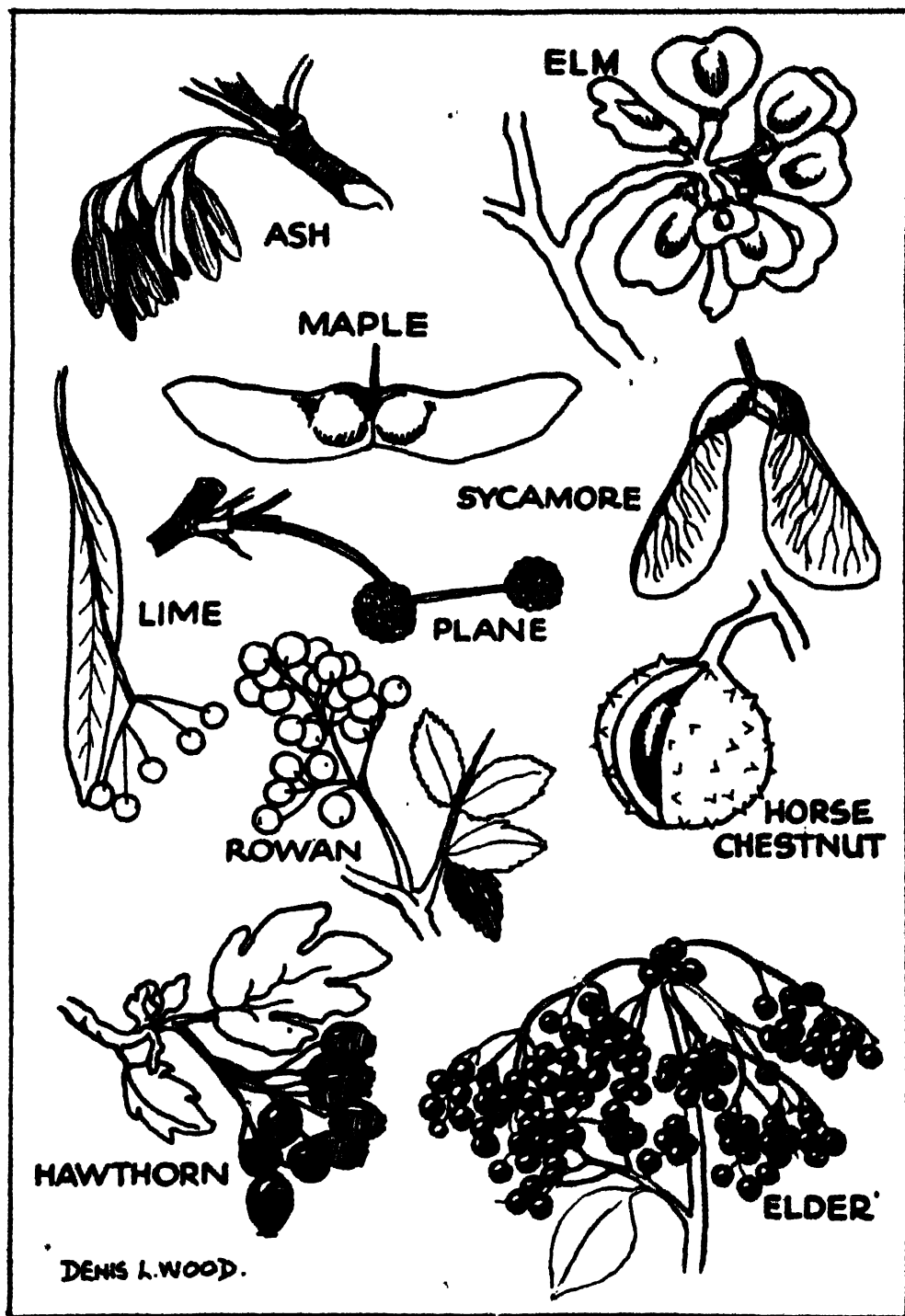


Fig. 47.—FLOWERS OF NON-CATEKIN-BEARING TREES.

DENIS L. WOOD.



DENIS L. WOOD.

FIG. 46.—FRUITS OF NON-CATECHIN-BEARING TREES.

fruit of the oak, but excrescences due to insects.

17. *The Larch*

One of the cone-bearing trees, but not an evergreen. It has a very dead-looking appearance in the Winter, but Spring clothes it with a beautiful fresh green.

Buds.—Small brown beads.

Leaves.—Soft, slender needles, growing in tufts of brightest green, darkening later and falling in the Autumn.

Flower.—Two kinds, male and female. The male are small, oval catkins, yellow in colour, and near by are the female, beautiful rose-red tassels.

Fruit.—A cone, rose-pink at first, brown, hard, and woody later. The winged white seeds lie behind the scales of the cone.

B. DECIDUOUS, NON-CATKIN-BEARING TREES

1. *The Common Elm*

A typically English tree, growing to a great height. One of the characteristics of the tree is the amount of brushwood round its trunk.

Buds.—Numerous, small, and alternately arranged. Pink and downy.

Leaves.—Oval-shaped, pointed at the apex, toothed. The hairs below the leaf have irritating properties rather like those of nettles. The leaves turn to orange in Autumn, then yellow, and fall in showers.

Flower.—Appearing before the leaves, and very beautiful. The flower-buds can be distinguished from the leaf-buds by the fact that they are larger and more rounded. There is only one kind of flower on the elm,

clusters of rusty red blossom, made up of stamens and seed-vessels.

Fruit.—Tufts of winged seeds, thin and papery.

2. *The Wych or Broad-Leaved Elm*

A taller tree, with larger buds, and leaves which are much bigger and coarser. There is no brushwood round the trunk, which is bare. Twigs of this tree were once supposed to be a protection against witches.

3. *The Ash*

The trunk is straight and ash-grey, hence the tree's name.

Buds.—Very black, borne on stout, pale-grey twigs above noticeable leaf-scars.

Leaves.—Compound, consisting of six or more pairs of leaflets and an odd one at the end. Very graceful leaflets, feathery and light, lance-shaped with toothed edges, sitting opposite to each other on a central stalk. Late in unfolding and one of the first to fall.

Flower.—Clusters of purple-headed stamens and green seed-vessels. Sometimes there are stamens only, in which case the tree bears no fruit.

Fruit.—Tufts of "keys" or "spinners," green and winged.

4. *The Lime or Linden*

A familiar town-tree. It is, however, often pollarded, and the resulting distortion gives no idea of the beauty of the tree in its natural shape. In the parks and in the country it may be seen at its best.

Buds.—Ruby-red, alternately arranged, oval-shaped.

Leaves.—Large and heart-shaped, pointed at the apex, toothed, and unevenly lobed. Smooth above, downy

below. They turn yellow and gold in the Autumn.

Flower.—Very fragrant and beloved by bees. Clusters of yellow-white blossoms, their stalks rising from one long stalk which is joined to a bract.

Fruit.—Little downy balls, hanging from the bract which becomes brown and withered. The fruit seldom ripens in England, but in hot countries becomes a small nut.

5. *The Field Maple*

A small tree, but more often seen as a bush in the hedge.

Buds.—Small and pointed, tightly pressed against the stem.

Leaves.—Bright crimson at first, dark green above and light green below later. Shaped like a hand with five short fingers. The stalk is red. The leaves change to a brilliant yellow in the Autumn.

Flower.—Spikes of greenish-yellow flower-clusters, erect at first, drooping later.

Fruit.—Bunches of winged seeds in pairs, "keys" or samaras, crimson, turning to brown later.

6. *The Sycamore, Great Maple, or False Plane*

Both the names of Sycamore and Plane are really wrong for this tree, which is neither one nor the other. Nevertheless it is given the name of Sycamore more often than any other. The trunk is grey and slightly scaly, but not so much so as that of the real Plane.

Buds.—A large one at the apex of the twig with a pair of smaller ones each side (known as "cocks and hens" by country children). Small ones down the twig, green in colour.

Leaves.—Like a large hand with

five blunt fingers. Unequally toothed and rather coarse in texture. In late Summer the leaves are often disfigured by round dark dots, caused by a fungus.

Flower.—Tassels of pale yellowish-green blossom, hanging downwards. Honey-filled and much liked by the bees.

Fruit.—Winged seeds in pairs.

7. *The Plane*

There are two kinds, the Oriental¹ Plane and the Western Plane, but as they are really only geographical varieties of one species, they may here be considered as one tree. The trunk is easily distinguished by the fact that the bark peels off in flakes, exposing patches of bright, clean under-surface. This tree is excellent for town-planting, and there are many Planes in our big cities.

Buds.—The cone-shaped buds are arranged alternately and in colour are dull green.

Leaves.—Rather like those of the Sycamore. They are shaped like a hand with five sharply pointed fingers, toothed all round. The stalk is green, and the base fits neatly over next year's bud, hiding it completely.

Flower.—Two kinds, borne on the same tree, one male, the other female. Both are ball-shaped, carried on a green, pendulous stalk.

Fruit.—The well-known "buttons"—round balls dangling down, brown and bristly, threaded on a long stem.

8. *The Rowan or Mountain Ash*

Not really related to the Ash, but its leaves are rather like those of the latter tree, hence the name. In the old days a Rowan twig was nailed over

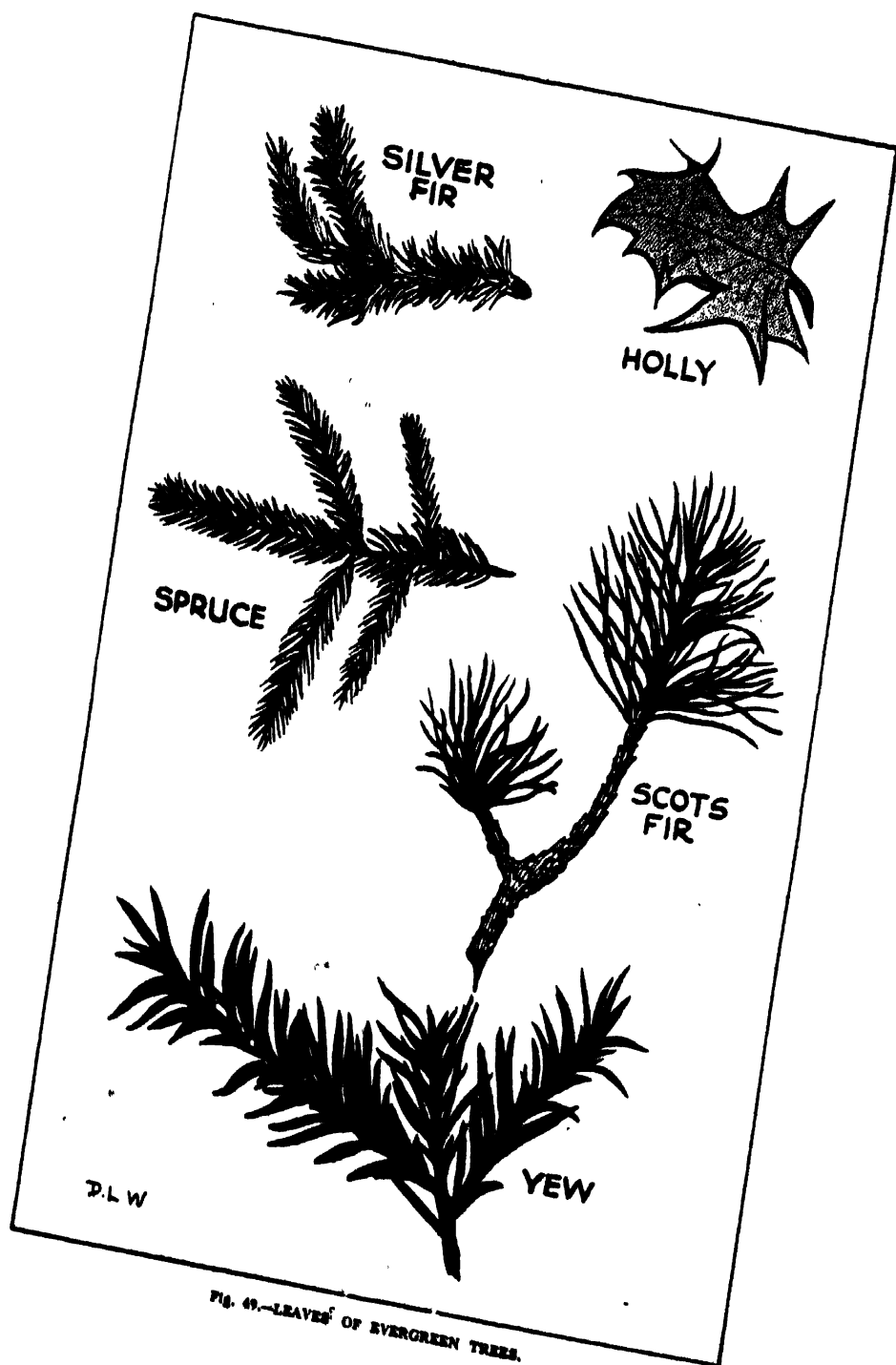


FIG. 49.—LEAVES OF EVERGREEN TREES.

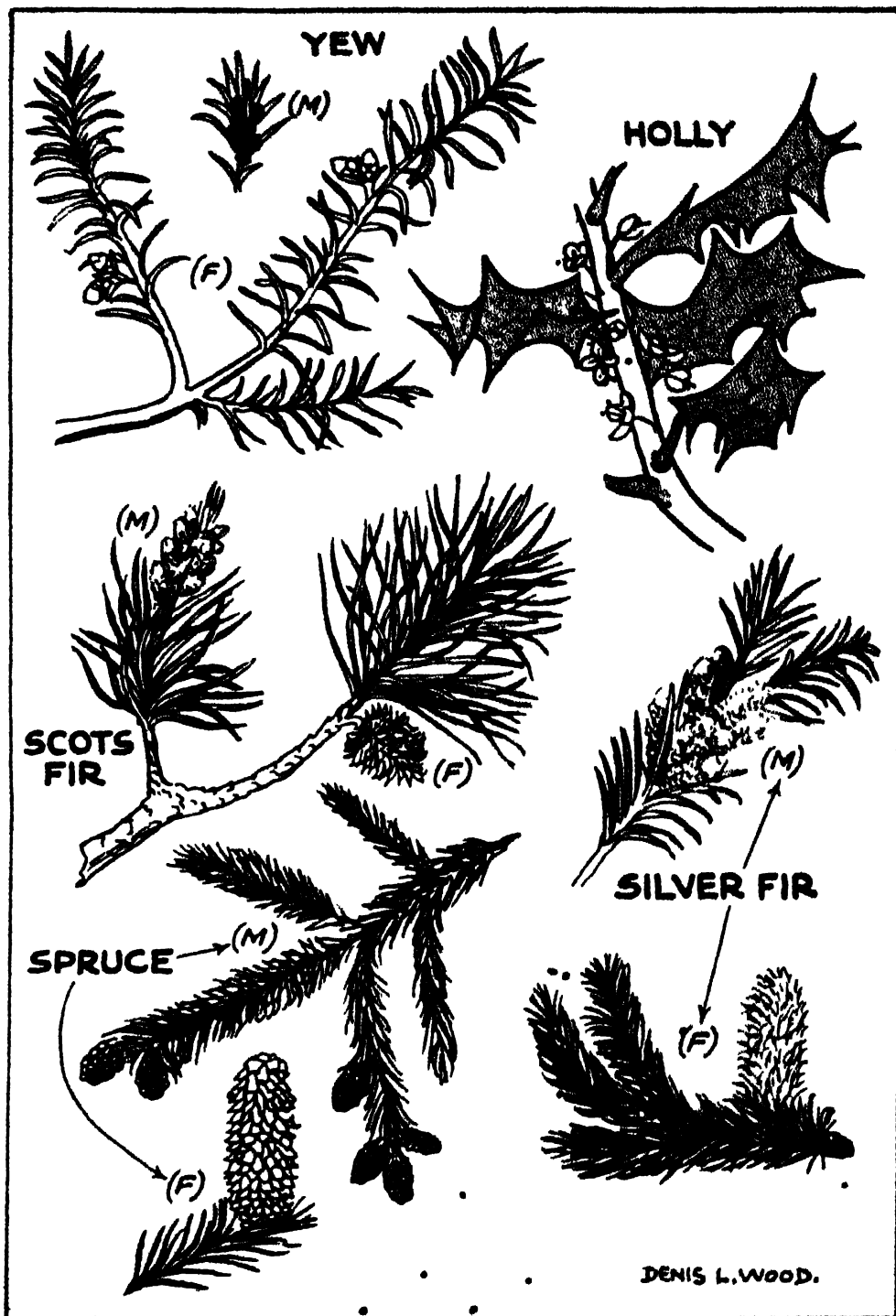


FIG. 40.—FLOWERS OF EVERGREEN TREES.

a door to keep witches away. It is a small, graceful tree.

Buds.—Fat and woolly, covered with grey cottony down.

Leaves.—Many pairs of small leaflets growing opposite and alternately to each other with a common stalk in the middle. There is an odd leaflet at the end. Unlike those of the Ash, these leaflets have no stalk. In the Autumn they turn yellow, pink, and scarlet.

Flower.—Dense clusters of creamy blossoms.

Fruit.—Clusters of bright yellow-red berries; much liked by birds.

9. *The Hawthorn*

Another well-known tree, often seen as a bush in the hedgerows. The branches bear sharp thorns.

Buds.—Little red knobs, changing into green as spring draws near.

Leaves.—Dark green and glossy, cut into blunt fingers, changing to gold, red and brown in Autumn.

Flower.—The well-known May-blossom, snowy-white, borne in clusters, and very fragrant.

Fruit.—The red haws loved by birds.

10. *The Horse-chestnut*

A magnificent tree, with large spreading branches.

Buds.—Known by nearly all children. Fat, brown, and very sticky, the twigs showing horseshoe-shaped scars.

Leaves.—Large, and cut into seven pear-shaped leaflets, some small and some large. In July and August they turn red, brown, and yellow, and begin to fall.

Flower.—Lovely spires of white or pink.

Fruit.—The "conkers" much sought

after by children. The shiny brown seed is enclosed in a prickly green case.

11. *Elder*

A tree of the wayside, never growing very tall. Its stems are often used as pop-guns, pea-shooters or music pipes, as the pith inside is easily extracted, leaving a hollow tube.

Buds.—Greenish, and very early in leaf.

Leaves.—Divided into five, seven, or nine leaflets of oval shape, with toothed edges.

Flower.—Flat-topped clusters of creamy-white blossoms, with a distinct odour.

Fruit.—The well-known elderberries, small, round and purple, in flat clusters.

C. EVERGREEN TREES

1. *The Scotch Pine or Scotch Fir*

A noble tree, rugged and tall, clothed with needle-like leaves, enabling it to withstand the gales that rage round the mountain slopes on which it loves to grow.

Leaves.—Green needles with soft, blunt points, usually growing in pairs. They are placed all round the twig.

Flower.—Two kinds on the same tree. The male are dense yellow spikes at the end of last year's twigs. The female are tiny pink cones, changing to rich green the first Summer, and to ash-grey the second, when they also become hard and woody.

Fruit.—Hard woody cones, which contain behind their scales winged white seeds.

2. *The Yew*

A sombre green tree, often grown in graveyards. From this tree were

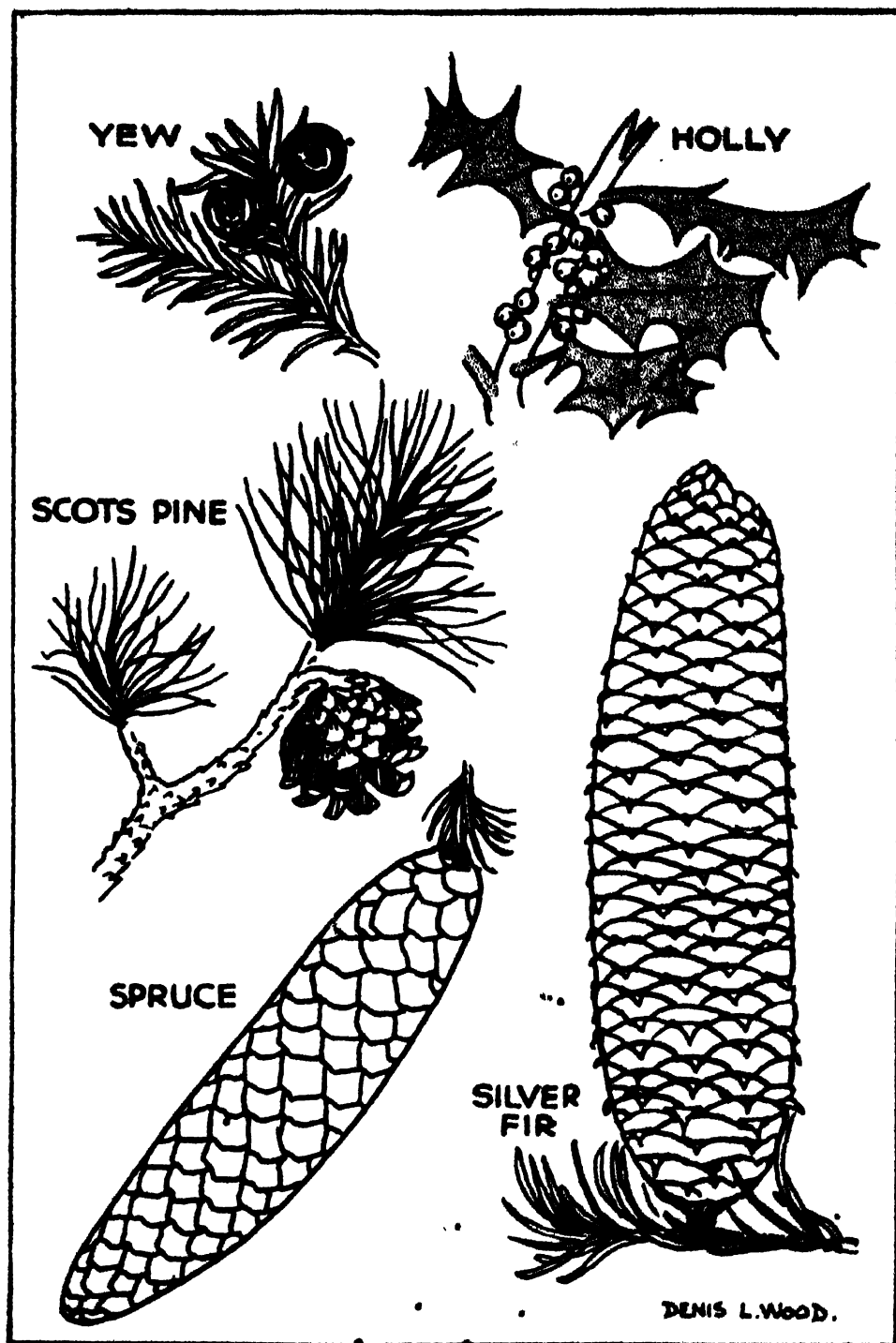


FIG. 51.—FRUITS OF EVERGREEN TREES.

made the bows used by archers in olden times. It always looks as if it had many trunks rising from one root. The bark is red, and when it peels it reveals the orange-red wood beneath.

Leaves.—Short and narrow, ending in blunt points, growing alternately all round the twig.

Flower.—Two kinds, male and female, usually borne on different trees, but occasionally on the same tree. The male are small and oval-shaped, yellow in colour, borne close to the main stem, on the underside in the leaf-nodes. The female is rather like a tiny green acorn in shape.

Fruit.—A lovely waxy-pink cup covering the green seed.

3. *The Spruce Fir*

One of our tallest trees, growing very straight, and pyramidal in shape. It is the "Christmas tree," known to all children in its early stage when it is only a few feet or more high. It usually has a spear-like point at the apex.

Leaves.—Short, hard and flat, prickly to the touch, growing singly and very close together all round the twigs.

Flower.—Two kinds, male and female. The male are borne at the tip of last year's twigs, and are little catkins, oval in shape, pink-yellow in colour. The female are red and cone-

shaped, and grow at the end of this year's twigs.

Fruit.—Papery cones about 6 inches in length, with blunt tips, hanging downwards when mature. The winged seeds are hidden behind the scales of the cone.

4. *The Silver Fir*

Rather like the Spruce Fir, and often mistaken for it. It lacks the spear-like point that rises at the apex of its cousin, and its cones sit upright on the branches instead of hanging downwards. Its leaves show a silvery white line from which the tree gets its name.

5. *The Holly*

Too well known to need much description. Not a very big tree, and more often grown as a bush. A favourite tree for Christmas decoration, hence called the Holy Tree.

Leaves.—Glossy green, highly polished, and set with sharp spines. The upper leaves are not so spiny, as animals cannot reach them, and therefore they do not need so much protection.

Flower.—Appearing as small crowded clusters in the leaf-nodes in May, waxy white. Trees which bear no berries show no seed-vessels in the flowers.

Fruit.—The well-known, red holly berries.

CHAPTER XVI

NATURE CHARTS

Simple Weather Charts. More Ambitious Charts. Individual Charts. A Bird-Table Chart.
Other Uses for the Charts.

ONE of the most useful and popular things in the classroom is the Nature Chart. Charts of any kind are always interesting, and children love to see their own chart growing gradually day by day. It should be a gay and attractive affair, big and easily seen, pinned up on one of the walls.

Simple Weather Charts

For the youngest children the teacher must make a very simple chart indeed. This should be merely a record of the weather entered each day, on a weekly or monthly chart. But, of course, the children should not record "Hot" or "Cold," "Wet" or "Fine," in those words, for that would be dull, and probably beyond the capabilities of the tinies. The chart should be pictorial.

A simple type of weather chart is shown, typical of one kept by the very small children. The teacher will see what symbols are taken for the daily weather. They can be varied to suit her own fancy or the children's ideas. A windy day may be shown by kites flying, chimney smoke blowing, or windmills turning. A bright sunny day is depicted by yellow suns with rays outstretched. Rain may be shown merely by slanting lines, but children love to draw umbrellas wide open. They also like to draw Wellington

boots, as many of them come to school in these on a rainy day.

Snow may be shown by snowflakes or by snowmen, and a rainbow may be depicted by a coloured arch. A day of showers and sunshine will be composed of both umbrellas and suns, with perhaps a rainbow in the middle.

The teacher may like to decorate the outside of the chart with appropriate illustrations or patterns, or the children may like to find suitable pictures of flowers or birds to colour, cut out, and paste round the chart to make it attractive. The symbols they use for the weather, kites, snowmen, and so on, may either be drawn straight on the chart and coloured, or may be drawn by the children and cut out to paste on the chart itself. The latter procedure is the better, as then all the children can take part, and the teacher can choose the best symbols and tell those children who drew them to cut them out and paste them on.

More Ambitious Charts

More ambitious charts may be prepared later on. One for each term should be made, with columns for such things as Animals, Birds, Flowers, Weather, and so on. It is best to make this a weekly chart, a sort of summary of the week's happenings in the world of Nature. Here again the



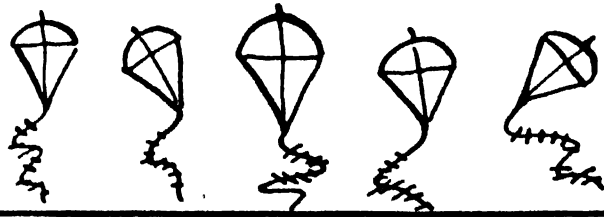
Day	Weather
Monday	
Tuesday	
Wednesday	
Thursday	

Fig. 52.—A VERY SIMPLE WEATHER CHART.

Umbrellas for Rain, Suns for Sunshine, and Kites for Wind.

things may either be drawn straight on to the chart, or may be done separately by the children and the best ones cut out and pasted on.

Pictures pasted on make the chart look much more imposing, and the children prefer it. The writing necessary should usually be done by the teacher, as little children cannot write neatly enough to fill the small space left for the written record. However, there may be a child eager enough and deft enough to do all the writing neces-

sary, and he should be allowed to be the nature scribe for the class.

The whole class should join in choosing what sentences to put, or what happenings to picture on the chart. The teacher will see in this weekly entry a good opportunity for oral composition, spelling, and writing. Each child may write in his own book what is written up on the chart. A child should be chosen each week to read what was written last week.

When the charts are all finished,

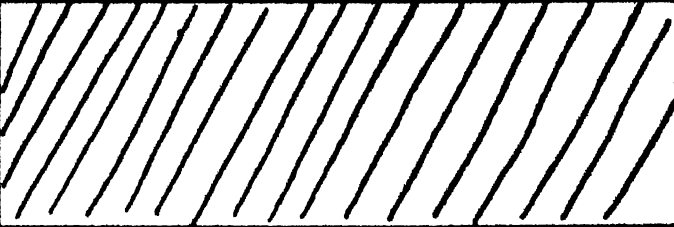
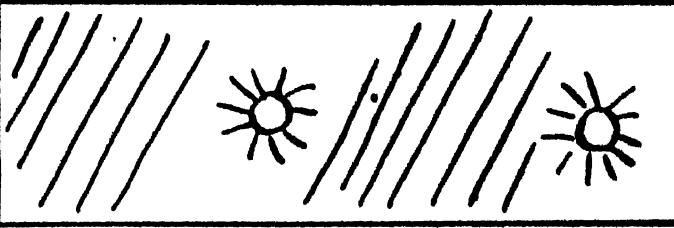
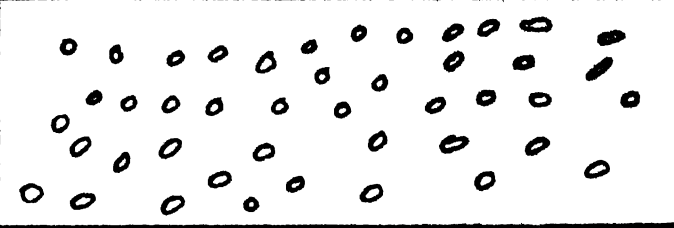
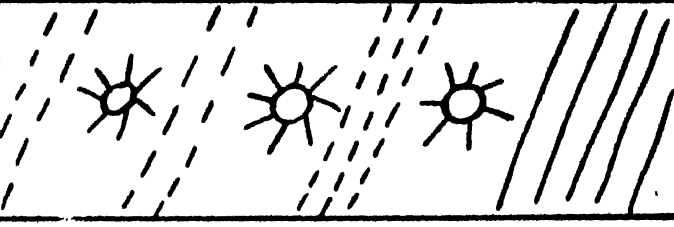

Day	Weather
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

FIG. 55.—A SIMPLE WEATHER CHART.

Pictures to be drawn on chart itself. Slanting lines are rain; slanting lines and sun, a rainy day with spells of sunshine; Wednesday shows snowflakes; another way of representing snow is by snowmen. Thursday represents a showery, sunny day, ending in steady rain; Friday shows a windy day.

and a year's nature-happenings recorded on them, they should be strung together like a calendar. They will be useful in many ways. They can be compared next year with the happen-

ings recorded then, and the children will see what difference to the countryside or the garden a backward Spring makes with its cold weather and bitter winds. They will notice that the same

Bird-Table Chart	
November 1	A robin came for Bread.
November 2	Some sparrows came.
November 4	We put up a coconut.
November 5	Two blue-tits came to coconut.
November 8	A chaffinch came.
November 9	We put out some fat.
November 10	Starlings and tits eat fat.
November 11	Sparrows, robins, starlings and tits today.
November 12	Starlings are greedy. We had a Great-tit today. The Chaffinch brought his little brown wife.
November 13	The robin pecked at our window.
November 16	It was very cold and all the birds puffed their feathers out.

Fig. 84.—AN INTERESTING BIRD-TABLE CHART
Easily kept by the children.

winds are prevalent in March as in the year before. They will see that when their charts say "West wind" they usually also have to record some rain. These facts, noticed with interest and pleasure, form a sound basis for more advanced Nature and Geography later on.

Individual Charts

Many children will wish to keep individual charts and they should be encouraged to do so. One child may be exceedingly interested in butterflies, and wish to keep a butterfly chart. Another may like to keep a flower chart, noting down and drawing the

flowers that come out in the garden week by week. These charts should be put on the wall for all to see, for they encourage the other children.

A Bird-Table Chart

Another interesting chart to keep for older children is a Bird-Table Chart, recording the birds that come to the table, and the things that happen there. An example is given, but only the bare writing is shown. The chart itself should be very gay indeed, with all kinds of birds, coloured and pasted round the chart. The children delight in doing this, and will

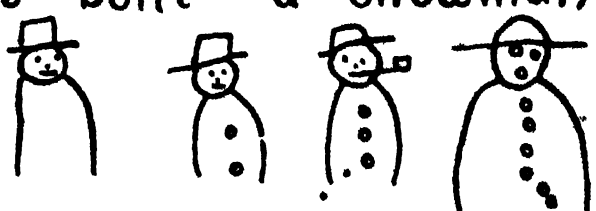



Nature Chart Spring Term	
JANUARY	
First week	We built a snowman. 
Second Week	We found some aconites 
Third Week	We heard a lark sing in the sky 
Fourth Week	Our first hyacinth came out. 

FIG. 55.—A TYPICAL INFANTS' NATURE CHART FOR JANUARY.

Drawn by the children.

be full of pleasure to see a bird on the table which is shown in the decoration round the chart.

It goes without saying that for a chart of this sort the bird-table must be set up in a place near the classroom window, so that the children may note

what is going on. The table, if well spread with food of all kinds (see Chapter IV), will be very popular with the birds of the neighbourhood, and there will always be plenty to note down on the chart. If the children are rather small, and find a written



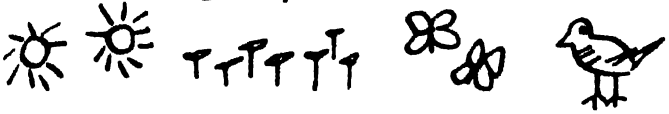

Nature Chart Summer Term.	
MAY	
First Week	Our tadpoles have back legs 
Second Week	The buttercups are out. We found a sparrow's nest. We saw a hedgehog. 
Third Week	We want rain. Our seeds are coming up. We saw many butterflies, and also a Cuckoo. 
Fourth Week	Tadpoles have four legs. The bees are in the lime. We heard them. 

FIG. 54.—A TYPICAL INFANTS' NATURE CHART FOR MAY.

Drawn by the children.

record dull, the teacher should find some good pictures of the common birds and let the children paste them on the chart, as they note them feeding on the bird-table.

Other Uses for the Charts

These charts should be lent occasionally to other classes, who will be most interested in them. The fact that "the big children" want to see their Weather

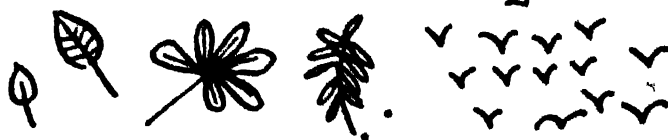

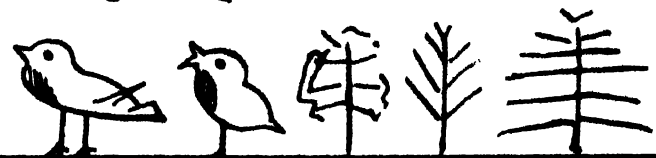

Nature Chart. Winter Term	
OCTOBER	
First Week	<p>The leaves are falling. The swallows are leaving.</p> 
Second Week	<p>The ivy is in bloom. Many insects are round it.</p> 
Third Week	<p>The robin is singing. The trees are getting bare.</p> 
Fourth Week	<p>We found toadstools. A cat came into school. We planted bulbs in garden.</p> 

FIG. 57.—TYPICAL NATURE CHART FOR OCTOBER.

Pictures to be drawn and coloured by children in their own books and then cut out and stuck on. This chart should be large.

or Nature Records will make the little ones all the keener. They may also be used as reading matter by the teacher, who will say, "John, take down last week's chart and see if you can find out

what happened on Thursday. Tell us when you know"; or, "Mary, here is last term's nature chart. Will you tell us what date we heard the cuckoo? We have forgotten." The children will





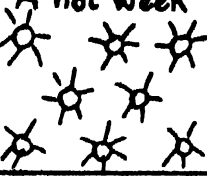




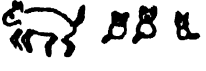
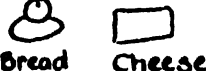
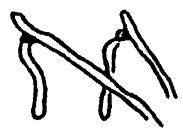
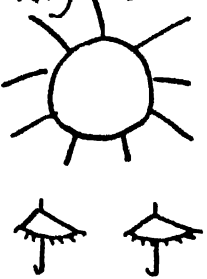
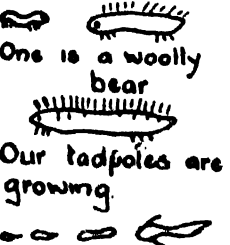


NATURE CHART FOR APRIL			
Weather	Animals	Birds	Flowers
<p>The first week was showery</p> 	<p>We have frog and toad spawn</p> 	<p>We heard the Cuckoo</p> 	<p>Daffodils and primroses are out</p> 
<p>A hot week</p> 	<p>Our spawn has hatched</p> 	<p>We saw some swallows. We found a thrush's nest.</p> 	<p>Celandines are out.</p> 
<p>Windy and rainy</p> 	<p>We saw some lambs skipping. Teacher's cat has 3 kittens</p> 	<p>We heard a yellowhammer say "Little bit of bread and no cheese."</p> 	<p>The school poplar has big catkins.</p> 
<p>Very hot</p> 	<p>We have many caterpillars. One is a woolly bear Our tadpoles are growing.</p> 	<p>The birds are singing loudly.</p> 	<p>Many flowers are coming out.</p> 

FIG. 88.—A MORE AMBITIOUS NATURE CHART.

The children either draw straight on the chart, which is on a large scale, or else draw pictures in their books and colour them. The teacher chooses the best ones and they are cut out and pasted on the chart.

be helped by the pictures, and will soon find out what they have been asked for.

Enough has now been said to show the teacher the importance and the use of the nature chart or calendar.

The samples shown are typical, but, of course, do not display the decoration round the outside. The calendar lends itself to many ideas, and may easily be made one of the most attractive features of the class.

CHAPTER XVII

A BIBLIOGRAPHY

Reference Books for the Teacher, with Publishers and Prices. School Nature Study Leaflets, issued by the School Nature Study Union. *Countryside* and the B.E.N.A. Series of Nature Books or Readers Suitable for the Silent-Reading Shelf, Reading Aloud, or as Simple Reference Books for the Children's Own Use.

THE Wayside and Woodland Series," published by Frederick Warne.

"Wayside and Woodland Blossoms." A pocket guide to British Wild Flowers, for the country Rambler. Clear descriptions of 760 species and coloured figures of 257 species, three volumes. Price 7s. 6d. each.

"Wayside and Woodland Trees." Filled with good simple descriptions, coloured plates, and photographs. Price 7s. 6d.

"Animal Life of the British Isles." Excellent descriptions of all British animals, their lives and habits, with plenty of coloured plates and photographs. Price 7s. 6d.

"The Butterflies of the British Isles." Clear descriptions and life histories of all the species, with hundreds of coloured figures and black and white drawings. Price 7s. 6d.

"The Moths of the British Isles." (in two volumes). Price 10s. 6d. each.

"The Birds of the British Isles and their Eggs." Complete descriptions of British Birds, their Nests and Eggs, with many coloured plates and photographs (in two volumes). Price 10s. 6d. each.

"Life of the Wayside and Woodland." When, where and what to observe and collect. Photographs and coloured plates. Price 7s. 6d.

"Butterflies and Moths of the United Kingdom," published by George Routledge and Sons, Ltd., at 10s. 6d. Complete descriptions of all butterflies and moths, with coloured representations of caterpillars, chrysalids, and perfect insects.

"Flowers of the Field," published by George Routledge & Sons, Ltd., at 10s. 6d. Complete descriptions of flowers, their habitats, and characteristics, with many hundreds of black and white and coloured drawings.

"British Birds in Their Haunts." Complete descriptions of our British Birds, with copious illustrations in colour. Routledge, 10s. 6d.

"British Trees," including Garden and Woodland Shrubs, with a chapter on Lichens. Photographs, coloured plates, and black and white drawings. Routledge, 10s. 6d.

"British Plants." By J. F. Bevis and H. J. Jeffery, published by Alston Rivers at 4s. 6d.

"Life Histories of Common Plants." By Cavers, published by the University Tutorial Press at 4s. 6d.

"A First Book of Botany." By Healey, published by Macmillan at 2s. 6d.

"Trees and How they Grow." By Clarke Nuttall, published by Cassell at 7s. 6d.

"How to Find and Name Wild Flowers." By Fox, published by Cassell, at 2s. 6d. and 3s. 6d.

"A School Flora." By Watts, published by Longmans at 4s. 6d.

"Name This Flower." By Gaston Bonnier, published by Dent at 7s. 6d.

"Elementary Studies of Plant Life." (Takes the study of Botany up to Matriculation Standard). By Fritsch and Salisbury, published by Bell at 7s. 6d.

"An Encyclopædia of Gardening." By W. P. Wright, published by Dent in the Everyman Series at 2s. 6d.

"Book of Bulbs." By S. Arnott, published by Lane at 3s. 6d.

"Introduction to Zoology Through Nature Study." By R. B. Lulham, published by Macmillan at 10s.

"The Naturalist at the Seashore." By Elmhirst, published by Black at 3s.

"Wonders of the Seashore." By Crabtree, published by Epworth Press at 1s. 6d.

"British Insects and How to Know Them." By H. Bastin, published by Methuen at 2s. 6d.

"Life of the Bee." By Maeterlinck, published by Allen at 6s.

"The Lore of the Honey Bee." By Tickner Edwards, published by Macmillan at 2s. 6d.

"Enid Blyton's Nature Lessons." By Enid Blyton, published by Evans Bros. at 3s. 6d.

"The Freshwater Aquarium." By Bateman, published by The Avenue Press at 5s.

"Pets and How to Keep Them." By Finn, published by Hutchinson at 7s. 6d.

"Simple Lessons on the Weather." By Stenhouse, published by Methuen at 4s. (Excellent photographs.)

"Our Resident Birds and How to Know Them." By Elms, published by Thornton Butterworth at 2s. 6d.

"British Birds." By F. B. Kirkman and F. C. R. Jourdain, published by T. C. and E. C. Jack at one guinea. Although rather expensive for the teacher, this large volume more than repays the money spent. To begin with it contains two hundred magnificent colour plates, featuring all our British birds. The pictures alone would make the book worth getting as an accurate reference. In addition to these, however, there are short and concise notes on each bird, under five headings. These are Description of Bird, Range and Habitat, Nest and Eggs, Food and Usual Notes. It is absolutely essential for the teacher to have a really good book of reference in order that she may look up the various birds she sees on the bird-table, out on Nature Rambles, or has described to her by the children. The book is so arranged that even small children can use it with pleasure and understanding.

"The School Nature Study Leaflets," published by the School Nature Study Union, are highly to be recommended. These leaflets, obtainable post free at 2½d. each, have a very wide scope, and take in every aspect of Nature. There is not space enough to mention them all here, but the titles of two or three

will suffice to show that they have a direct appeal to the teacher. "Tree Buds in Winter." "How to Start a School Garden." "Birds in the Open and How to Distinguish Them." "Life by the Seashore." "Sun-dials" etc. Practically every leaflet is fully illustrated, the pictures being of the kind that the teacher can easily and quickly copy on to the blackboard where necessary.

A full list will be sent on application to Mr. E. G. Clarke, Craig Rossie, Stanley Avenue, Wembley. Should the teacher wish to belong to the Society, the subscription is four shillings annually. It need hardly be said that all teachers would benefit by the rambles and lectures arranged, leaflets issued, and so on.

Countryside.—This is an excellent journal published quarterly and is the organ of the British Empire Naturalists' Association. Particulars may be had from the Hon. Sec., 8, Glamorgan Road, Hampton Wick. As well as the journal an interesting Nature Diary is issued each year. There are many pages of Nature Notes, and a great many photographs. The teacher interested in Nature will find it entertaining and instructive to keep a diary such as this, writing up day by day the happenings she has observed. It soon becomes a valuable book of reference, and if kept properly is a great help in drawing up future Nature Schemes. Price 2s. 6d. and 3s. 6d.

SERIES OF NATURE BOOKS OR READERS

The following are all simply written, interesting books, many of them suitable for the silent-reading shelf, or for simple reference books for the

children's own use. Even the smallest child can learn to use books to find the picture of a certain bird, insect or butterfly, and though he may not be able to read himself, he can bring the book to the teacher so that she can read to him about the creature he is interested in at the moment. Many of these books may with advantage be read aloud to the class by the teacher, especially during the winter months when, in town schools particularly, Nature Study seems rather at a standstill. They are not detailed in full, but the publishers will send the list on application. Most of the series contain the same kind of matter, i.e. stories or descriptions of Bird Life, Seashore Life, Insect Life, Animal Life, and so on.

"The Oxford Elementary School Books." All at 1s. 6d. each.

"Shown to the Children Series," Published by Nelson at 3s. 6d. each.

"The Rambler Nature Books." Published by Blackie at 1s. each.

"Eyes and No Eyes Series." Published by Cassell at 1s. to 1s. 3d. each.

"Open-Air Nature Books." Published by Dent at 1s. each.

"Look About You Series." Published by Nelson at 1s. 3d. each.

"Country Life Readers." Published by Oxford University Press at 1s. each.

"Wonders of Plant Life, Wonders of Insect Life, Wonders of the Sea, Wonders of Animal Life." Each series containing six books; published by Oxford University Press at 1s. each.

"The Enid Blyton Books." Three of this series are very useful to the Nature teacher. They are The Bird

Book, the British Animal Book, and the Zoo Book. The Bird Book contains everything about our common birds and how to make friends with them that the child needs to know. The teacher will find it useful as a reference book, or instructive to read aloud. The older children will like to read it by themselves. The Animal Book tells the story of all our British animals, fox, rabbit, mole, frog, newt and so on,

simply and interestingly. The Zoo Book describes the lives and habits of all the animals and many of the birds to be seen at the Zoo. It is an invaluable book to have before a visit to the Zoo. The Bird Book and the Animal Book are fully illustrated in black and white and colour. The Zoo Book has a wealth of excellent photographs, taken at the Zoo itself. Published by Newnes at 2s. 6d. each.

HYGIENE

The Health of the Teacher. The Classroom. Cloak-rooms and Offices. Tidiness. Breathing Exercises. Weak Children. The Parent. Sleep.

The Health of the Teacher

THE children in our Infant Schools are jolly little people.

They look very much alike as one sees them squirming round the door when the bell is ringing for school.

"All life begins as a sell," wrote a biology student—one hopes she altered her opinion when she became a teacher!

But this similarity is only on the surface. Watch these children as each classroom swallows up its group for the afternoon session. They react to their environment like sensitive plants in a window. The whole tone—atmosphere—whatever you like to call the feel of a room, will be individual and characteristic.

This subject of hygiene is vitally and intensely the concern of the teacher. She, herself, must be healthy and happy if she wants a happy, healthy set of children. At least she must be healthy and appear happy, and this attractive condition is, I believe, more easily attained than people think.

The first step is the deliberate turning out of one's mind of all mental poisons.

Have you ever tried to push a thought out of your consciousness and not to entertain it until you wished to? It is almost entirely a matter of practice and then the habit is formed. What happens—as things are? A letter we expect has not come by the morning

post, or, worse still, we are in anxiety about a relation or friend. So one stands in front of those rows of littlest shining morning faces with a sour morbidity of soul. I am convinced it takes the colour from the day and clouds the room as truly as suspended moisture in the sky. It is a golden rule deliberately to turn out from the mind all mental poisons and leave outside the classroom door your domestic and private worries. The next most important thing is to deal with the physical poisons or toxins which accumulate in the body. Besides the daily flushing out of the system, try to get the habit of deep breathing, the acclimatising oneself to cool moving air and the frequent cleansing tonic bath, not the enervating hot kind, but coolish water and plenty of rubbing. A good skip the first thing in the morning and last thing at night helps on one's circulation. Never mind about a rope—pretend you have one—and try 100 skips!

You really wise woman will, too, consider the weak spot. That wretched weak spot which 999 out of 1,000 of us have! It is better to get on good terms with it and not try to ignore it and snub it out of existence. You have to live with it, so face it and try to make the best of it. It may be an excessive tendency to get chills and a

delicate chest, perhaps a weak heart and circulation, or a tiresome liver that will get upset easily, or we get nervy and emotional far too often. The thing is not to strain that weakness—it often entails some sacrifice in the way of giving up a show and going to bed early with a glass of hot milk, but it is worth it. Teaching weighs like lead upon a peevish sickly soul; it is a feather to the heart full of health and vigour.

Dr. James Kerr, in "Fundamentals of School Health," has an interesting chapter on the health of teachers. He says, "On the top of their strains and stresses many pay little attention to hygiene. Others are chronically poisoned by low septic conditions. They may have tiresome daily journeyings and a miserable mid-day meal. They may have dropped interests in the way of hobbies or recreations and take but little exercise. Stagnation, mental and physical, is the average teacher's risk. All kinds of social engagements and recreations should almost be a religion with the teacher." What comforting words those last are! If this be true for the teachers of older children, how ten times truer it is for the Infants' teacher! The person of the teacher of little ones is of such importance, too; even the hand, stretched out so often, can be a hygiene lesson in itself—pink, kind and clean—not black rimmed, grabbing, and slapping. Children react so to colour and charm. Of course, a pretty fresh overall is attractive and a great saving of one's dress, but there is something to be said for a soft clean woollen jersey or coat—it feels so nice to the little head in distress. It is not an easy thing to manage one's clothes and one's person

day in day out. It means carefully directed thought and expenditure, but it does prevent that sinking feeling to be attractively and comfortably dressed.

I heard a teacher the other day say vehemently, "Now all look at ME"—the forty babies did so, and received the impression of a giant in an earth-coloured nightgown with a leather belt and black Wellington boots. One of them cried at once, and we all sympathised with him. Then how can anyone keep cheerful in tight shoes or in a stocking with a hole just where the big toe comes? It is a subtle source of irritation all day. An experienced and most successful head mistress told me that she always arranged for three school dresses to be ready for use at once. She wore one for a week, and then the second, and so on. By this plan she did not get tired of her wardrobe—the clothes lasted longer, and she was convinced her children appreciated the rather frequent change in her appearance. Certainly every woman knows that pretty, suitable clothes make for happiness, and happiness for greater efficiency.

The Classroom

Although the rooms are very alike yet there can be great diversity in appearance. Practically every teacher has a free hand in the arrangement and care of her room, and how delightful some of our classrooms are! Existing conditions have been adapted and wonders worked with poor tools and unpromising materials. Somehow the feelings of Youth and Joy and Air and Beauty have been enticed into the place. If one analyses the treatment of such a room one notices first, I think,

a masterly reserve on the walls. A few simple bright pictures—clean and tidily framed—with the children's efforts confined to a framed space on one area only of a wall. A specialist in nursery decoration told me she liked to have only one good picture in her room, but she changed it quite frequently. It was thus a constant source of interest and pleasure.

The colouring of the walls and treatment of the floor are—alas!—out of the control of the individual teacher. If the authorities would give the babies' room a kindly cork carpet or some rubber composition like the flooring of the wards of a big hospital, it would be a great boon. Deal boards are hard things to sit down upon suddenly! I have seen quite useful woven straw mats and large squares of self-coloured felt used with very good results. If the room should chance to be discoloured pale yellow, it can be made most gay and attractive with growing green things and flowers. Blues and greys are cheerful, too, and combine well with plant life.

Nearly all modern infant rooms are on the ground floor, so the question of stairs and of guarding high windows does not concern us. Bright clean windows are important and ventilators that work and are kept in order, and not used as a stand for the bowl that once contained a goldfish that died. It is the overcrowding with enormous toys and apparatus that makes the room look and feel stuffy and unhygienic. Small individual toys can be kept in a 3 ft. high cupboard, painted white or cream colour. The toys are more easily replaced, and not so likely to become infected as those massive fabric ones.

Then we shan't get our spacious feeling if we have too many curtains or too much drapery of any kind and all bunches of Cape gooseberries and Honesty and dried grasses should be got rid of. They collect dust and occupy air space. Growing bulbs, well-cared-for ferns, and a good aquarium form the best possible ornaments in a classroom. In the babies' room, of course, there will be little tables and chairs—some of these wooden arm-chairs seem to tip up much too readily. How cheery an open fire looks on a dull day! I hope we shall keep them for their ventilating value as well as their other virtues; a high well-fitting guard is necessary, and also the fire should be kept active and not allowed to relapse into a smouldering heap. The temperature of the room needs constant care. One is apt to forget that heat can be as mischievous as cold. If the room is too warm the little ones lose their vitality and become restless and unresponsive—60° to 62° is generally comfortable.

Cloak-rooms and Offices

The cloak-rooms and offices are damp and dreary spots and that question of cleanliness is such a difficult one. The ideal is for each child to have his own towel and mug and keep them for his own personal use, but in how many schools is this possible? I think myself that there are many girls, perhaps members of a Guide Company attached to a Secondary or High School or big private school who would willingly present a towel to each child in a class if the need was known. Why could not the older children design little pegs and labels on which a little one's name could be printed, and then each in-

dividual would have a possession. If I had a class in a poor school I should try with all my might to get my class adopted by a class in a rich school. Help would come then with flowers, occasional fresh eggs and butter, and even clothes and shoes for the destitute ones.

There is so much kindness and generosity in the world if only one can find the way to it. Some of our poor babies have such dirty habits and come from such miserable homes. What can we do to help them? I do not think that set lessons are of any use in the world. The child with the clean handkerchief pinned on its frock can be brought out and praised and the others advised to ask their mothers for "hankies", too. This will bring some response. Pretty pictures (some of those issued by the Health and Cleanliness Council are excellent) can be shown and conversation lessons held about them. Little stories such as Pig Brother in "The Golden Windows" will make a great impression. Above all, associate fun and pleasure with washing with one's own towel, using one's own pretty comb, etc.

Tidiness

It really amounts to this: What is the teacher's scale of values? Does she herself care passionately about having cleanliness and order and beauty round her? If she does, these things will come—as they have come to many schools. The smallest infant feels and reacts to the tone of its surroundings. A child was asked, "How do we know God is beautiful?" He replied, "Because He keeps hisself clean." A few minutes every day are well invested in looking round for little points to

praise, someone's tidy hair, or clean pinafore, etc., and then just one or two daily duties; to see there is no dust on the chair or piano; to water the fern; how are the fish this morning? Do the flowers want attention? tired ones to be thrown away. All pictures straight and our own boxes tidy, etc.? These tiny matters made into a daily ritual will help to form ineradicable habits of neatness and order with our children.

The giving out of the eleven o'clock glass of milk and simple lunch is transformed in several schools I know into a charming little ceremony of courtesy and friendliness. After the washing of hands, gay and funny little tablecloths are produced and the tables laid by the children, who eat their bread and butter and drink their milk with as much desire to please and to be approved of as a débutante at her first ball.

Breathing Exercises

As regards those practices that are definitely of hygienic value: it is helpful and good for the little ones to blow their noses well at the beginning of every morning, and to have a few deep breathing exercises. Whenever possible these should be given in the open air. If the sun shines try to get the windows down so that the direct light may fall on the children. At the same time danger of chill must be thought of—if the day is cold, warm coats should be put on before going out and no child should sit at its desk with a stream of cold air playing on its head and neck.

Young children by their restlessness stir up more dust and impurities than older ones, and consequently the air of the classroom is very likely to become vitiated. Efficient ventilation is of

great importance. Every day when the children are out, the room should be thoroughly flushed out with fresh air by opening all the windows widely top and bottom. According to Sir John Simon, "in proportion to their respective bodily weights even healthy children are twice as powerful as adults in deteriorating the air in which they breathe."

One can always ensure a free current of air without a draught on the heads of the children by a well-known device. It consists in raising the lower sash of the window and fitting under it, in its whole width, a board five inches broad. Fresh air enters the room between the sashes and is directed by the lower sash towards the ceiling.

As regards the lighting, the children should not be placed facing a glare from any of the windows. In a well-planned classroom the principal windows will be on the left-hand side of the children and each child placed in a good light.

The great point is to avoid unduly straining the immature eye. It may be laid down as a rule that no young child should attempt any fine work or try to read small type, and whatever work he is engaged in should be kept as far away from the eyes as conveniently possible and be done in a good light.

What perfect models of unstudied grace and beauty can be seen in the babies' rooms in the early afternoon when the little ones are having their daily sleep! There they lie with their baby faces upturned and motionless in almost poignant defencelessness. They are most comfortable in the small stretcher beds, but only a few schools have, as yet, adopted these. They consist of wooden frames, with canvas

laced across, and to each one there is a blanket, and little pillow filled with chaff—both marked with the child's name.

At the end and middle of term the pillow cases are boiled and the chaff renewed. The blankets are hung in an airy place when not in use. The value of the open air is again evident here, and whenever possible the afternoon sleep should be arranged for in the playground or on a balcony.

In the school of the future, bubble drinking fountains will be installed, and we shall look back on the old communal drinking cup with horror. In these fountains—there is one, by the way, in Aberdeen—the child cannot bring his lips to the source and so leave a possible infection behind, but the jet of water is shot up into the mouth.

Special supervision and care is wanted in the water-closets, or "offices" as they are termed. In many schools the seats are still too high and the chain inaccessible. Roughly speaking, all children of school age are old enough to pull the chain and leave the place clean and tidy, but, of course, they want to be taught the reason and common sense of the performance.

A wet morning will always bring little ones with wet feet and soaked clothing. It is so useful to have a shelf with a dozen pairs of dry shoes—home-made felt slippers are good for the purpose—and many a bad cold and sore throat have been prevented by seeing a child has dried and warmed its damp feet.

Weak Children

If all our youngsters came to school normal and healthy, what a good

standard of hygiene we could maintain. It is the problem of the subnormal and delicate child which makes things difficult. A certain number have definite defects when they enter the babies' room. Some have discharging ears, some rickets. In large towns as many as 12 per cent. have eye disease of some form or other. A far higher percentage come with enlarged tonsils or adenoids, and malnutrition is widely existent.

I think the teacher who is a real child specialist can be easily detected by her attitude to the children with these handicaps. She also keeps a motherly eye on all her flock, for she knows how vitally important it is to detect the sickly child and put it in the best possible position for the prevention, detection, and cure of any threatening illness or deformity. As a rule we find the doctor likes to have his attention drawn to some disquieting symptom a child has shown. Any abnormal behaviour or physical or mental peculiarity should be mentioned at the medical inspection.

A stitch in time saves nine—so look out carefully for cases of defective sight or hearing, weak heart or lungs, enlarged glands, adenoids, postural defects of all kinds. Keep a watch, too, on the extremely nervous child, and of course, for any sign of contagious skin diseases, eczema or impetigo. These must be separated for treatment at an early stage.

There are generally a few constitutionally delicate children in every class of any size—those to whom the daily dose of malt and oil or the cup of milk means the difference between illness and health. We must not let these get passed over. We also have

to grapple with the boy who won't wear his spectacles and the twins who stay away on the day of the dental inspection.

"A little thing is only a little thing, but faithfulness in little things is a very big thing." And then those epidemics! Perhaps in the future the babies will come to us well salted against measles and common colds and the other pests that decimate our schools. At present, all we can do is to keep a vigilant eye on the child with the running cold and send him home and to look out constantly for the heavy, feverish, flushed child.

The indiscriminate use of pencils and pens should be prevented. Nowadays in all schools, each child has its own labelled box and keeps its things apart.

It is possible, too, to teach even babies not to blow or breathe in each others' faces, or kiss each other on the mouth, or to cough into handkerchiefs.

When epidemics are about, a useful preventative for the teacher herself is a tepid salt-water gargle and nasal douche (for the latter—about as much salt as will lie flat on a sixpence in a bedroom tumbler of water). This is reliable and very easily prepared; it strengthens the throat remarkably and lessens the tendency to take cold. Another simple aid to keeping well is to take a cup of tea or hot milk just before the daily journey home in a crowded bus or train. One is so much more liable to develop ailments when tired or hungry.

The Parent

Kate Douglas Wiggin was once asked what she considered the qualifications

for an ideal Infants' teacher. She answered :—

" The music of St. Cecilia,
The art of Raphael,
The dramatic genius of Rachel,
The administrative ability of Cromwell,
The wisdom of Solomon,
The meekness of Moses, and
The patience of Job."

I am sure nowadays she would add the tact of the Prince of Wales in dealing with parents. If we cannot get on far with the hygiene of the child without the teacher, we cannot get on at all without the co-operation and goodwill of the mother. In many London schools there is a real friendship between the teachers and the mothers of the infants. It is a splendid relationship as regards the children. After all, the mother and the home stand for clothes, food, and sleep, and at school all our efforts are but supplementary.

In some districts the mothers like to belong to a Guild or Club connected with the school. I know one very successful Guild which meets every fortnight during the winter in a well-lit, cheerful room. It is really the Cookery School. The fire is kept in and a few flowers brought in. There, among the shining tins and clean dishes, some forty or fifty mothers collect. Any of the staff who like to come are welcomed. There are music and needlework and always a speaker—generally a married woman—who introduces some topic of general interest for discussion. This type of meeting is more easily managed in the country and in connection with a Secondary School than in a big town. For the latter, Open Days and Jumble Sales form good ways of getting in touch with the

parents. Then a Health Corner can be arranged in a classroom. If well done it proves very attractive and does much good.

Plenty of posters—not ugly ones—but cheerful and bright should be pinned up extolling the virtues of sleep and cleanliness, etc. Then one or two model sets of clothing for a baby and children of school age could be shown. Life-sized dolls are best for this purpose.

For the Girl Doll

A vest of fine wool or combinations—which are more satisfactory as they fit better. Over this a washable Liberty bodice with knickers (of a good pattern with easily slipped in linings) buttoned, and a little serge or woollen frock.

For the Boy Doll

The vest or combinations—knickers and jersey. All clothing for young children should be suspended from the shoulders and not from the waist. Both boys and girls need a warm coat for out-of-doors, and sensible shoes. The little feet grow so rapidly that it is better to buy these rather large at first, and slip in a cork sock, otherwise they are outgrown. By the way, there seems a growing tendency to clothe children in Wellingtons and mackintoshes in all weathers. Of course these garments are excellent during heavy rain, but stuffy and tiring otherwise.

In the hot weather a thin woollen vest and cotton crawlers form quite sufficient covering for the little ones. They are so much easier to manage when comfortably and seasonably dressed.

To return to our Open Day Health Corner. Besides the clothing, an in-

interesting food display is useful; an exhibit showing the dangers to health of flies on food, food bad for children, or food containing vitamins. Whilst there seem differences of opinion as to the kinds and amounts of food required, there is a consensus as to the following essentials:

(1) A minimum of one pint of milk daily. (This should be boiled or pasteurised, or Grade "A.")

(2) A minimum of 2-4 ozs. of butter a week.

A daily dose of cod-liver oil may replace this or permit some reduction.

(3) A minimum of two eggs a week.

(4) In the case of young children the juice of an orange, tomato, grapes, or lemon (not lime) juice, and for older children an apple, orange, tomato, some green salad or lemon juice daily.

(5) Meat or fish—a minimum of 2-4 ozs. a day unless an egg is given.

Drinking water freely available.

Bread should have plenty of crust.

Oatmeal may be included if the pint of milk per day is increased.

Potatoes, after being well scrubbed, should be cooked and served in their skins.

Children under five should have either milk or cocoa made with milk. Tea or coffee should not be given.

The daily diet should contain some cooked vegetables in season and some hard food requiring the exercise of the jaws. The interval between meals should not be less than four hours and not longer than five, and nothing but water should be given during the interval. The best time for sweets is after a meal and not before. Mothers are always attracted and impressed by trays showing a day's food for a toddler and for an older child. It is great fun

preparing these Health Corners. Other little shows would include suitable and unsuitable toys and a model cotter bed to demonstrate healthy sleep.

Sleep

As a rough and ready rule, 14 hours are required by Infants, 12 hours for Juniors, and 10 hours for Seniors. We want a well-aired room, darkness, quietness, coolness, not too heavy or too many bedclothes—just sufficient for comfort, no "putting the head under the clothes," no heavy supper just before going to bed. It is not at all easy to advise parents about these matters. Some resent very much the suggestion that a child of five years of age should not be kept up till nine o'clock at night. To such people a well-planned exhibit with some suitable posters will make a strong appeal.

Sometimes one feels that the great London public knows very little of the splendid missionary work that teachers are doing in the poorer schools. There are to-day regiments of women giving their lives in the interests of the children and bringing health and happiness at the cost of money and strength.

The muffed windows, encumbered shelves, the Infants' gallery, and the rest of the dusty debris are gradually giving place to colour, space, light, order, and beauty.

However dull and squalid the neighbourhood, one forgets it on entering some of these Infants' rooms. One feels the will working and the pulse of earnest purpose throbbing. All this with the promise of more and more Nursery Schools and Play Centres, and greater public interest in the welfare of the young children makes the future full of hope.

